Prevent Air Pollution at the Source: Schools Chemical Cleanout

Wednesday, September 15, 2010

1:00 – 2:30 PM EST

Objectives

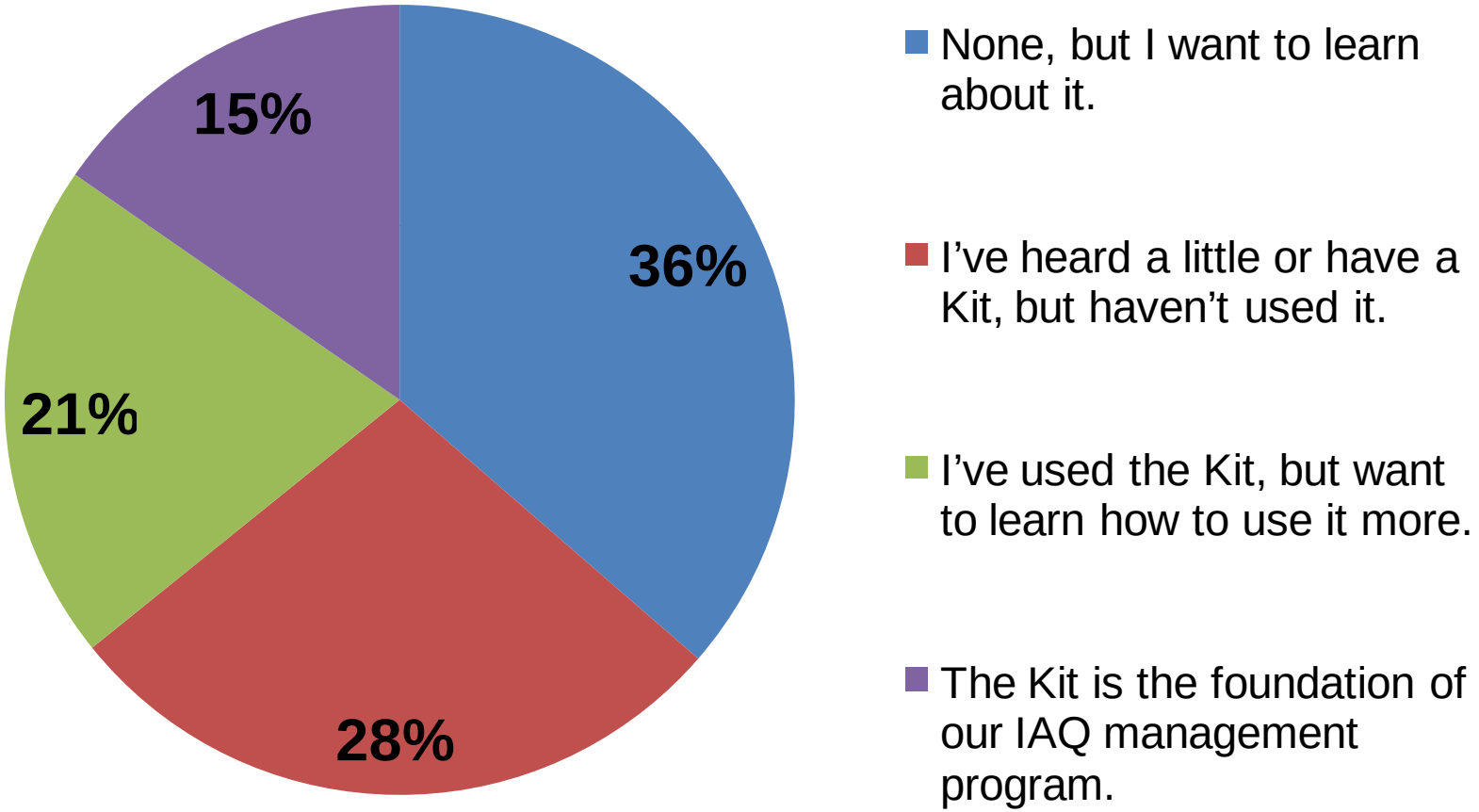
- Learn about the importance of performing a chemical cleanout at your school.
- Gain insight on how to establish a chemical management plan as part of your comprehensive IAQ management program.
- Discover effective steps all schools can take to responsibly manage chemicals.

Today's Webinar Presentation and Materials

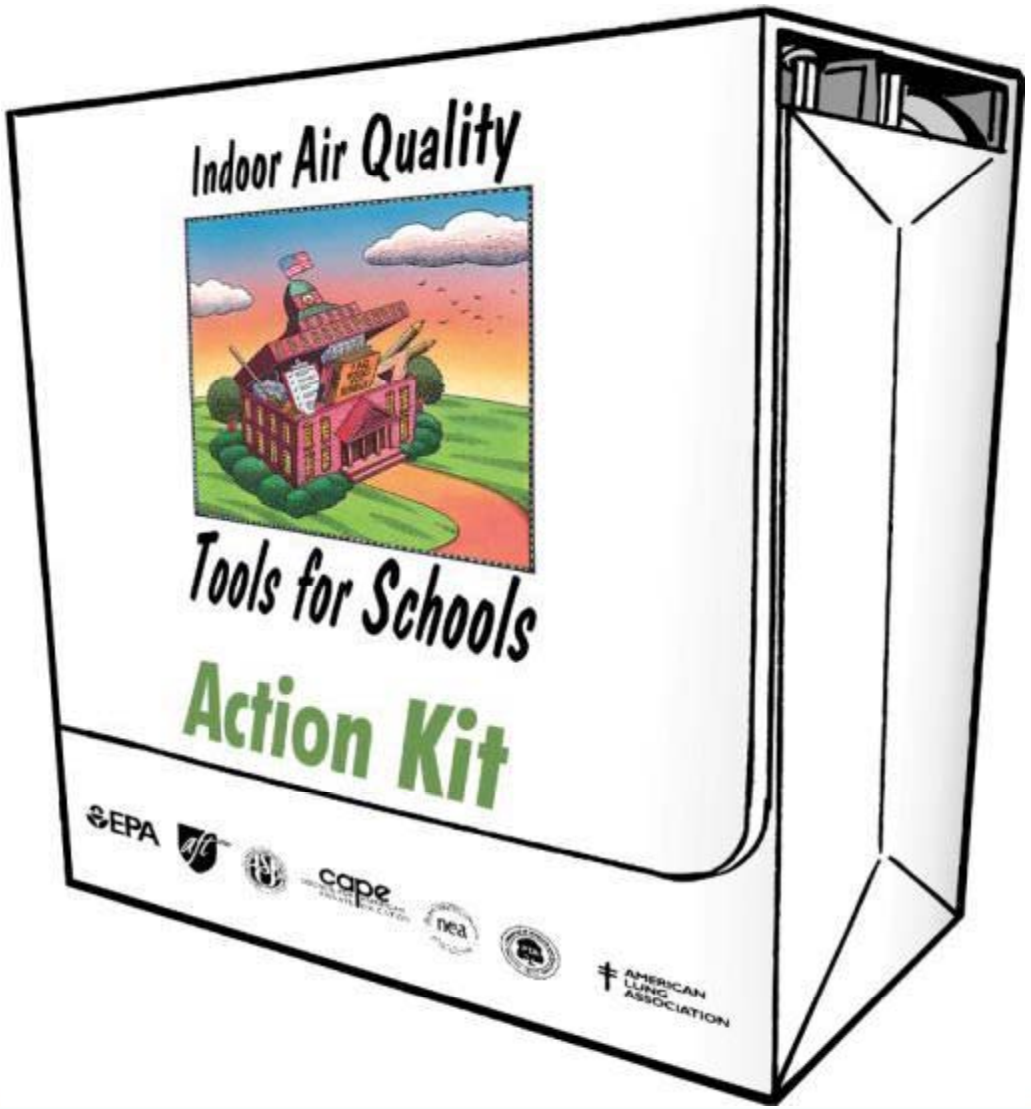
- PowerPoint slides, a Questions and Answers document and a list of resources will be available to you by the end of the month on the *IAQ Tools for Schools* website.

  - www.epa.gov/iaq/schools/webconferences.html

What is your experience with the *IAQ Tools for Schools* Program and Action Kit?



IAQ Tools for Schools Program



The Framework for Effective School IAQ Management

The Framework for Effective School IAQ Management:
Six Key Drivers

The Framework for Effective School IAQ Management:

Six Technical Solutions

The Framework for Effective School IAQ Management:
Six Technical Solutions

Quality HVAC
- Inspect HVAC systems regularly
- Establish a maintenance plan
- Change filters regularly and ensure condensate pans are draining
- Provide outdoor air ventilation according to ASHRAE Standard or local code
- Clean air supply diffusers, return registers, and outside air intakes
- Keep unit ventilators clear of books, papers, and other items

Control of Moisture/Mold
- Conduct routine moisture inspections
- Establish mold prevention and remediation plan
- Maintain indoor humidity levels between 30% and 60%
- Address moisture problems promptly
- Dry wet areas within 24-48 hours

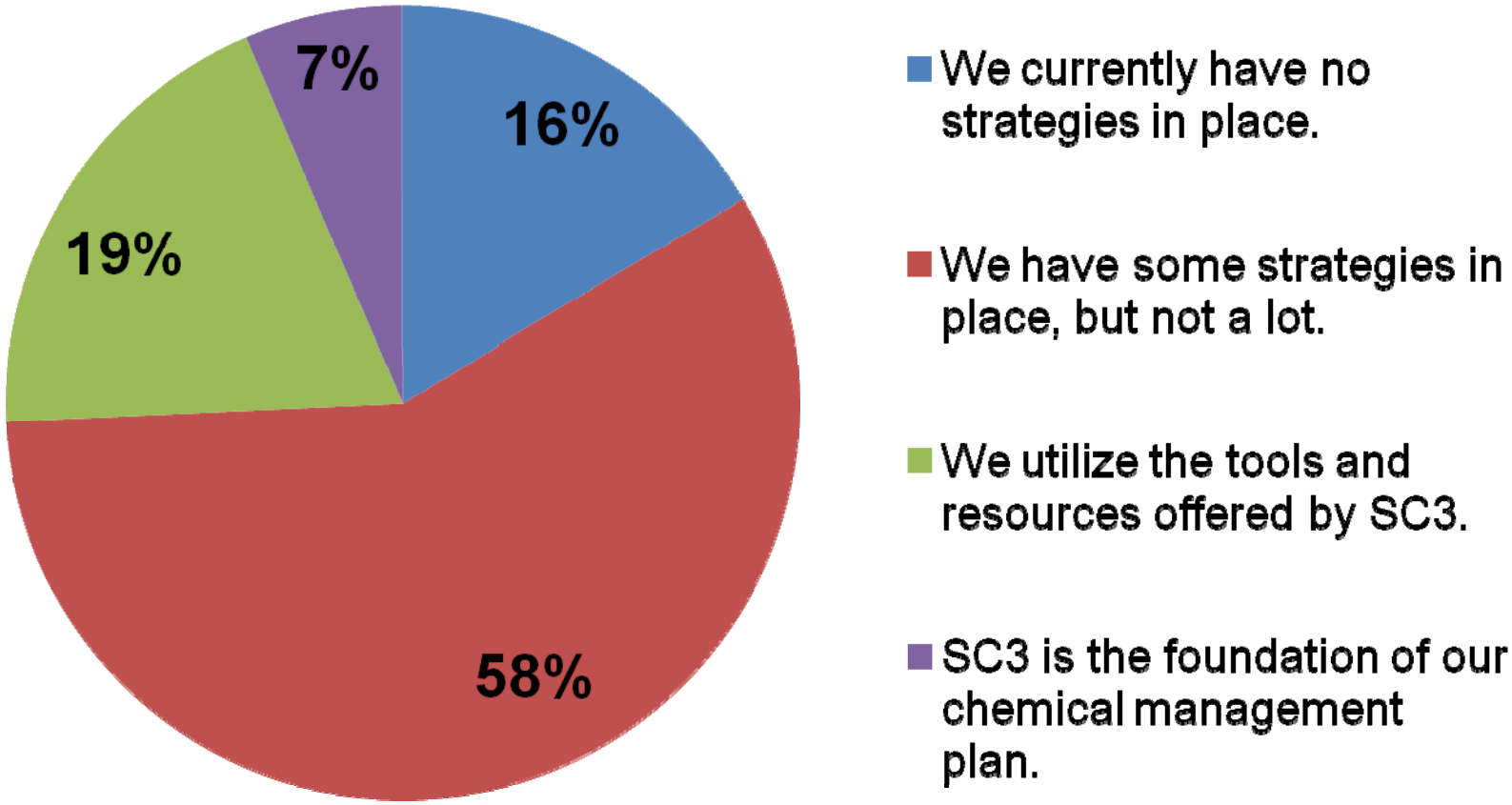
Strong Integrated Pest Management (IPM)
- Inspect and monitor for pests
- Establish an IPM plan
- Use spot treatments and baits
- Communicate with occupants prior to pesticide use
- Mark indoor and outdoor areas treated with pesticides

Effective Cleaning & Maintenance
- Conduct routine inspections of school environment
- Develop a preventative maintenance plan
- Train cleaning/maintenance staff on protocols
- Ensure material safety data sheets (MSDS) are available to staff
- Clean and remove dust with damp cloth
- Vacuum using high-efficiency filters

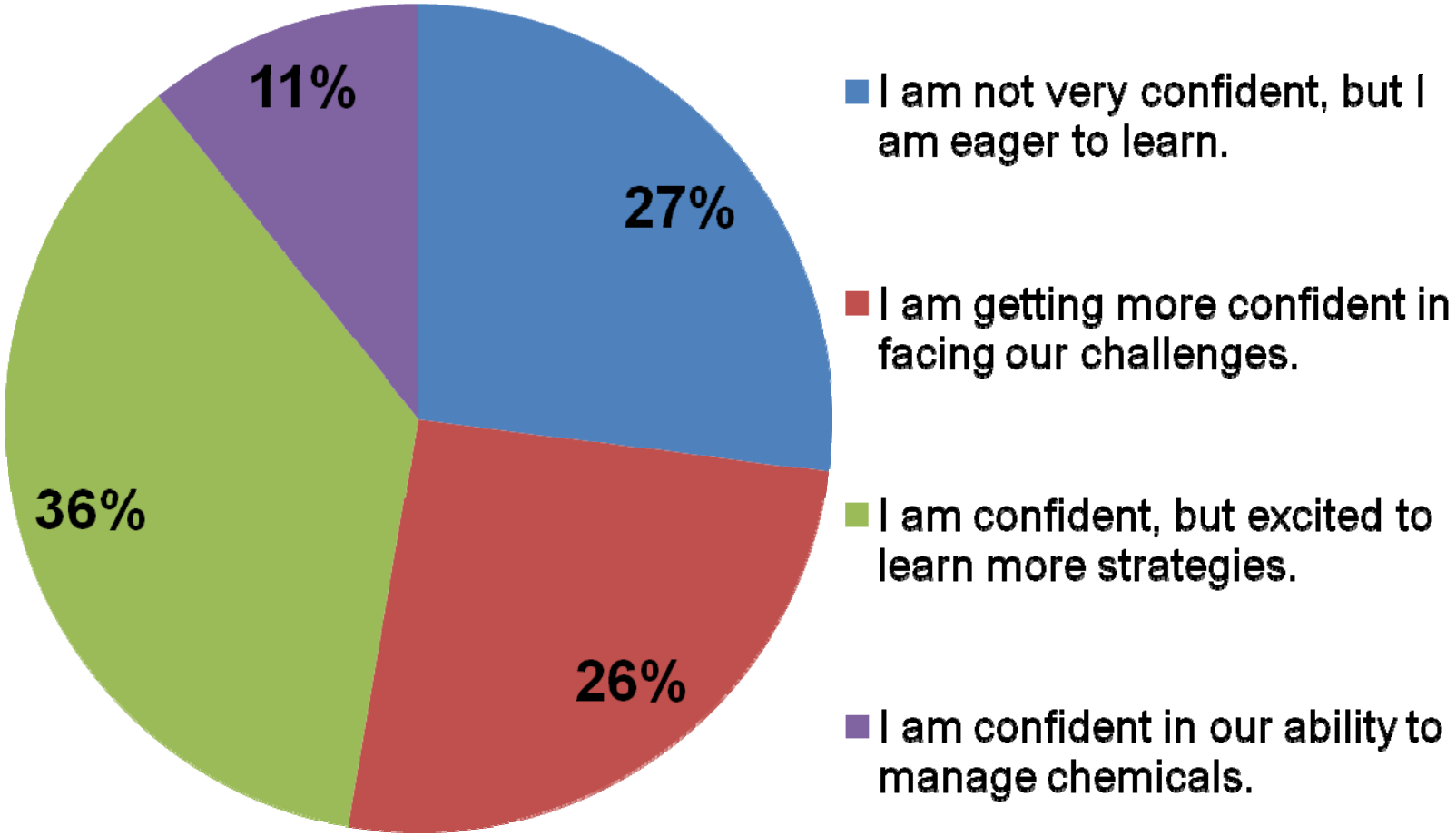
Smart Materials Selection
- Maintain products inventory
- Develop low-emitting products purchasing and use policies
- Use only formaldehyde-free materials
- Use only low-toxicity and low-emitting paint
- Select products based on product rating systems
- Use least toxic cleaners possible (only those approved by the district)

Aggressive Source Control
- Conduct regular building walkthrough inspections
- Test for radon; mitigate if necessary
- Implement a hazardous materials plan (use, label, storage and disposal)
- Establish a school chemical management and inventory plan
- Implement Smoke-Free policies
- Establish an anti-idling school bus policy
- Use walk-off mats at building entrances
- Conduct pollutant-releasing activities when school is unoccupied

What strategies does your school currently have in place for responsible chemical management?



How confident do you feel in your school's approaches to chemical management?



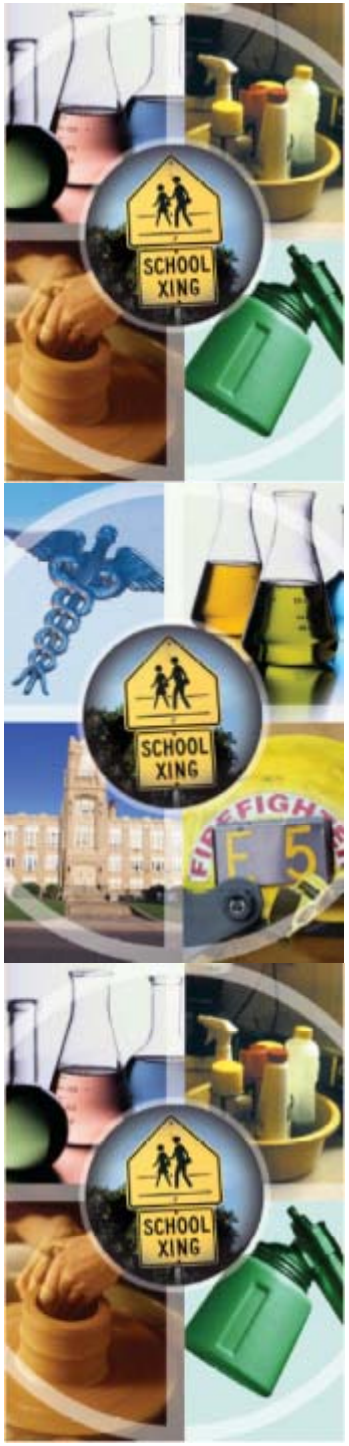
Introductions

Facilitator:

- Michele Curreri, *Indoor Air Quality Tools for Schools* Program, U.S. Environmental Protection Agency

Speakers:

- Kristina Meson, Schools Chemical Cleanout Campaign, U.S. Environmental Protection Agency
- Francine Locke, Office of Environmental Management and Services, School District of Philadelphia, Pennsylvania
- Michelle Lusk, Cement Kiln Recycling Coalition, Virginia



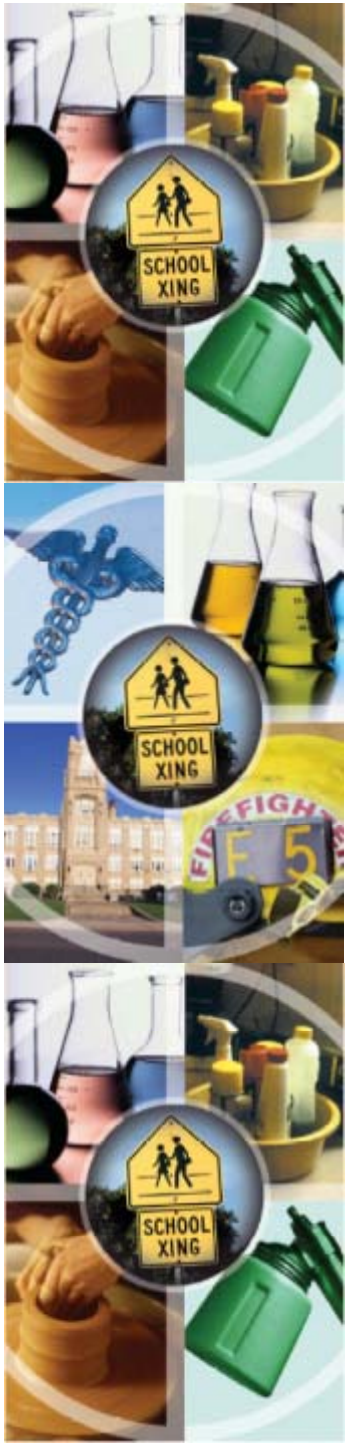
Creating a Healthy School Environment

Schools Chemical Cleanout Campaign (SC3)

Indoor Air Quality Tools for Schools

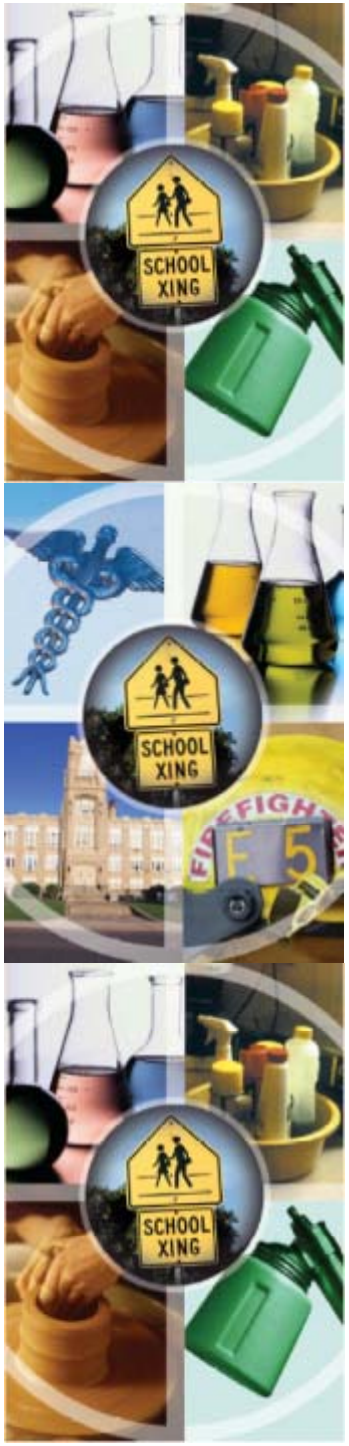
Webinar Series

15 September 2010



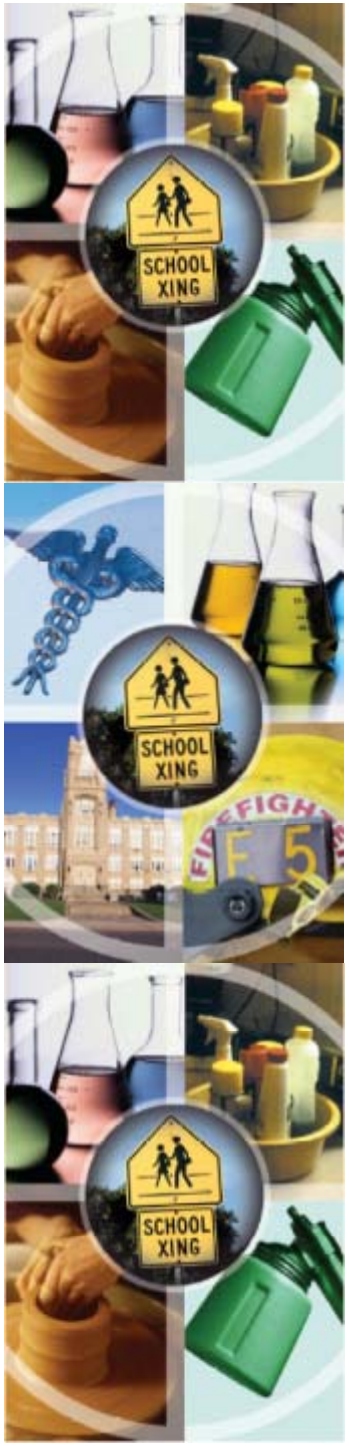
The Next 15 Minutes

- Overview of SC3 program
- Key elements of SC3 program
- Moving toward Action
- Sharing insights and ideas
- Putting it all together



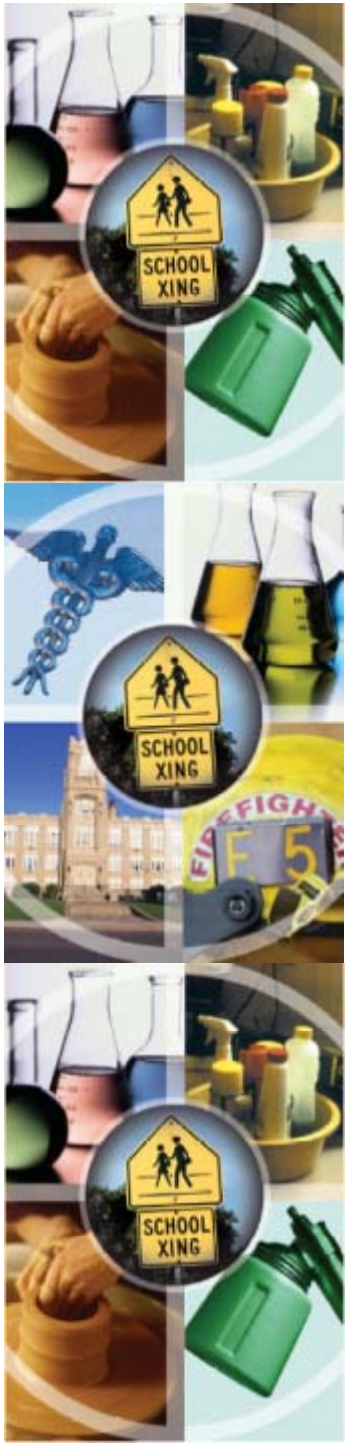
SC3 Goals

- Remove outdated, unknown and unneeded chemicals from K-12 schools.
- Raise awareness of chemical issues in schools and promote sustainable solutions.
- Prevent future mismanagement through training, curriculum change, and long-term solutions.



SC3 Support

- Tools: to assist schools design and implement a responsible chemical management program.
- Partner Network: to bring community volunteers with expertise and resources to schools in need of assistance.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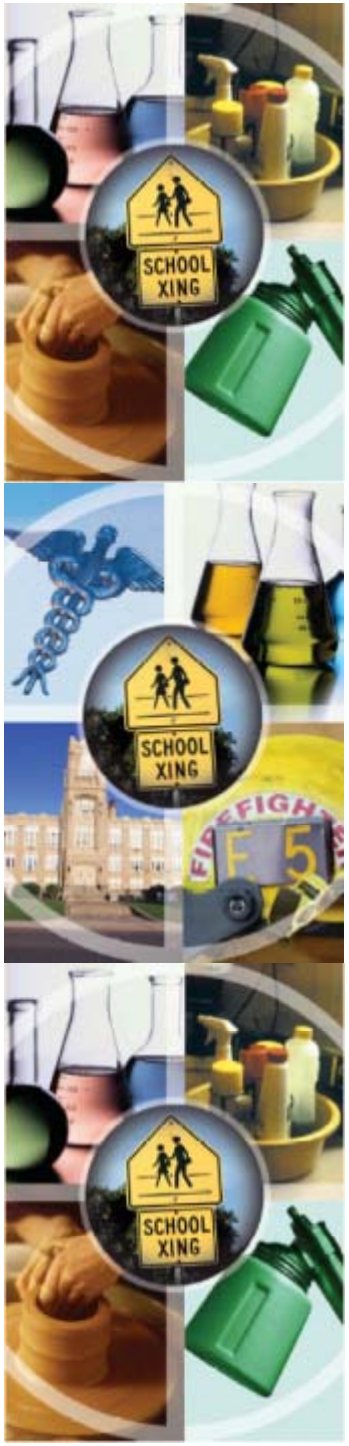
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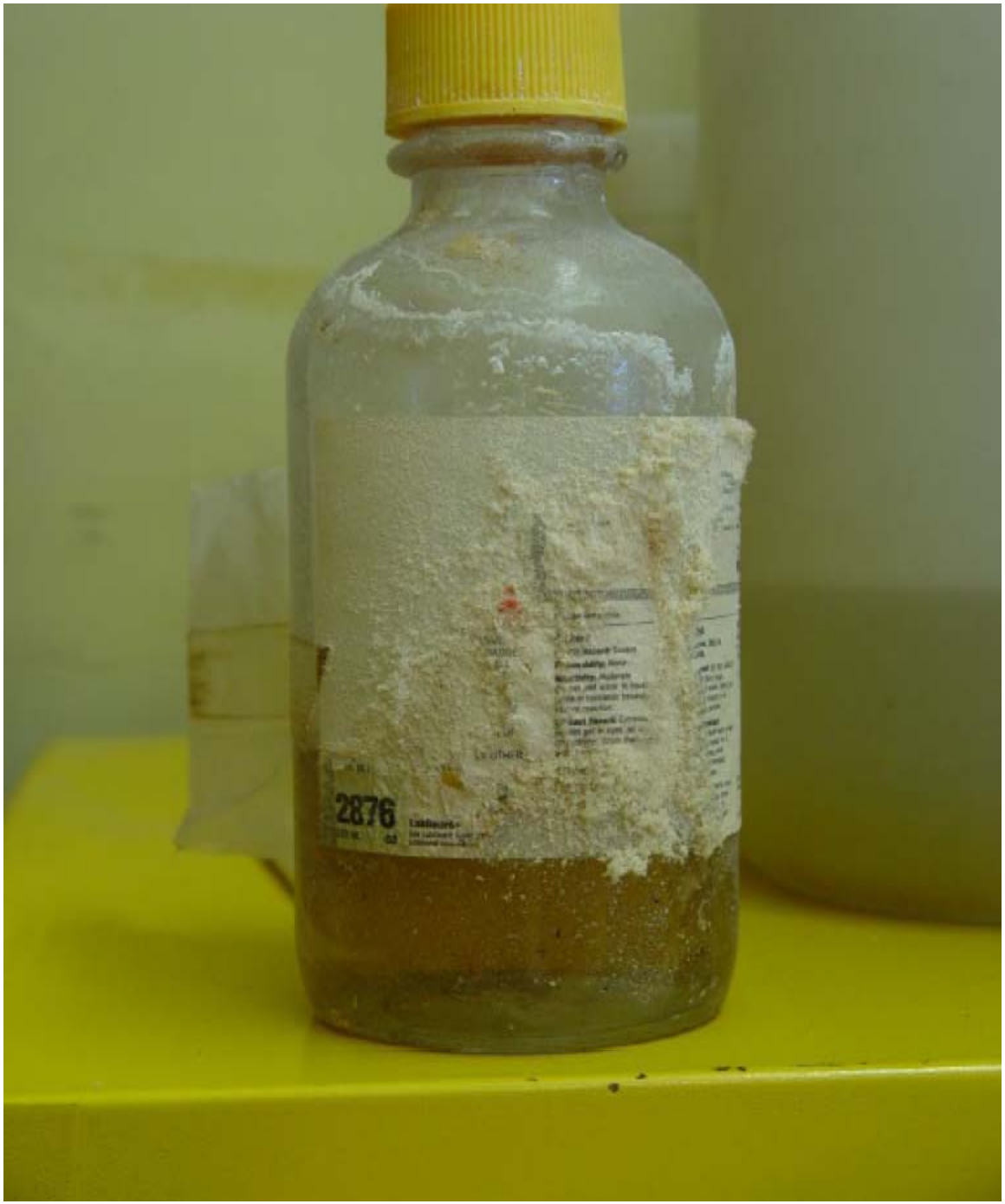
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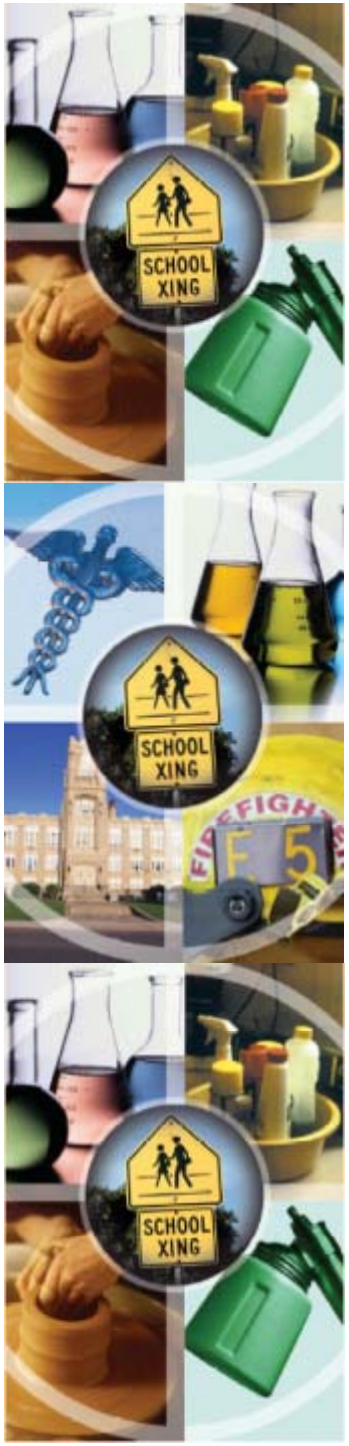
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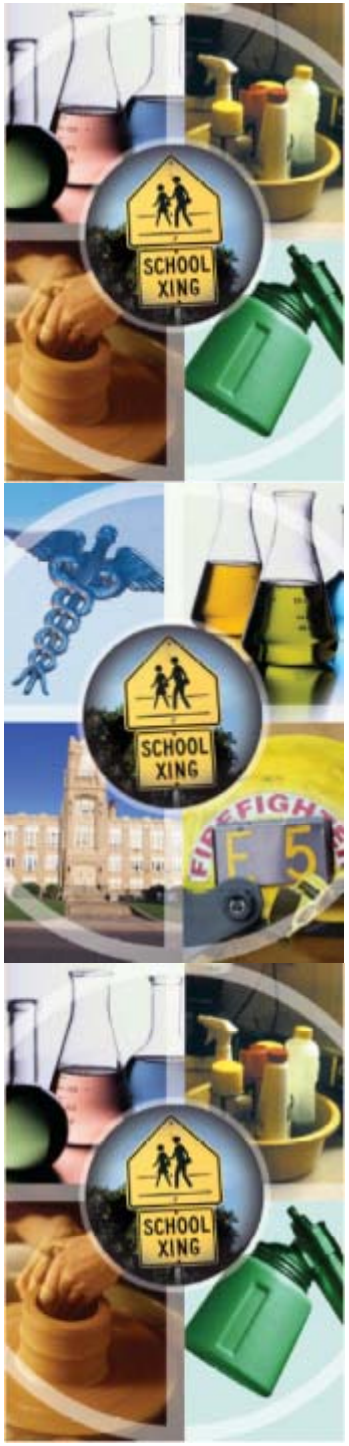
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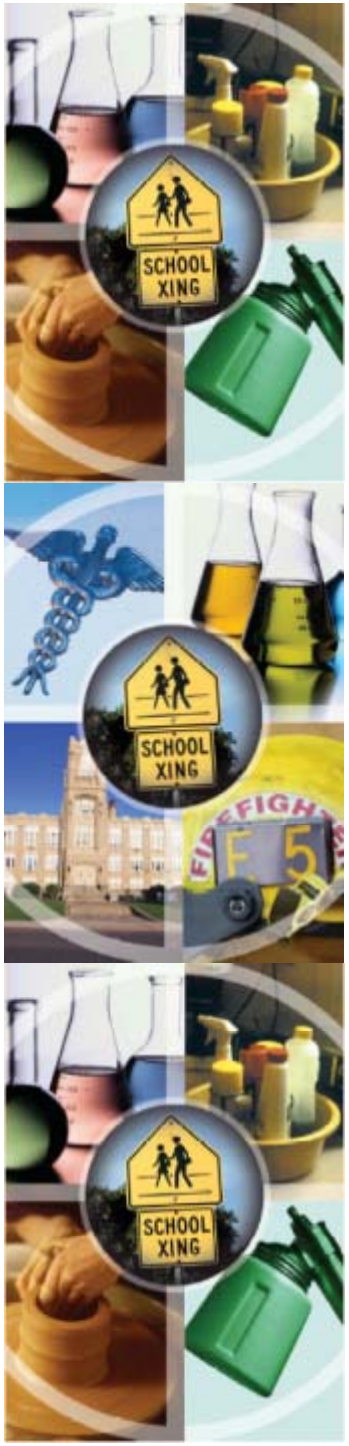
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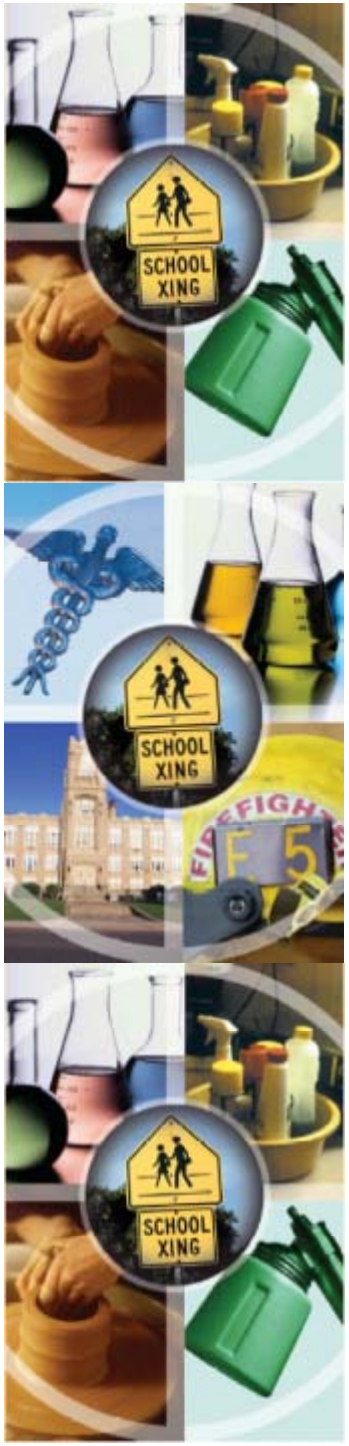
A-1
BLEACH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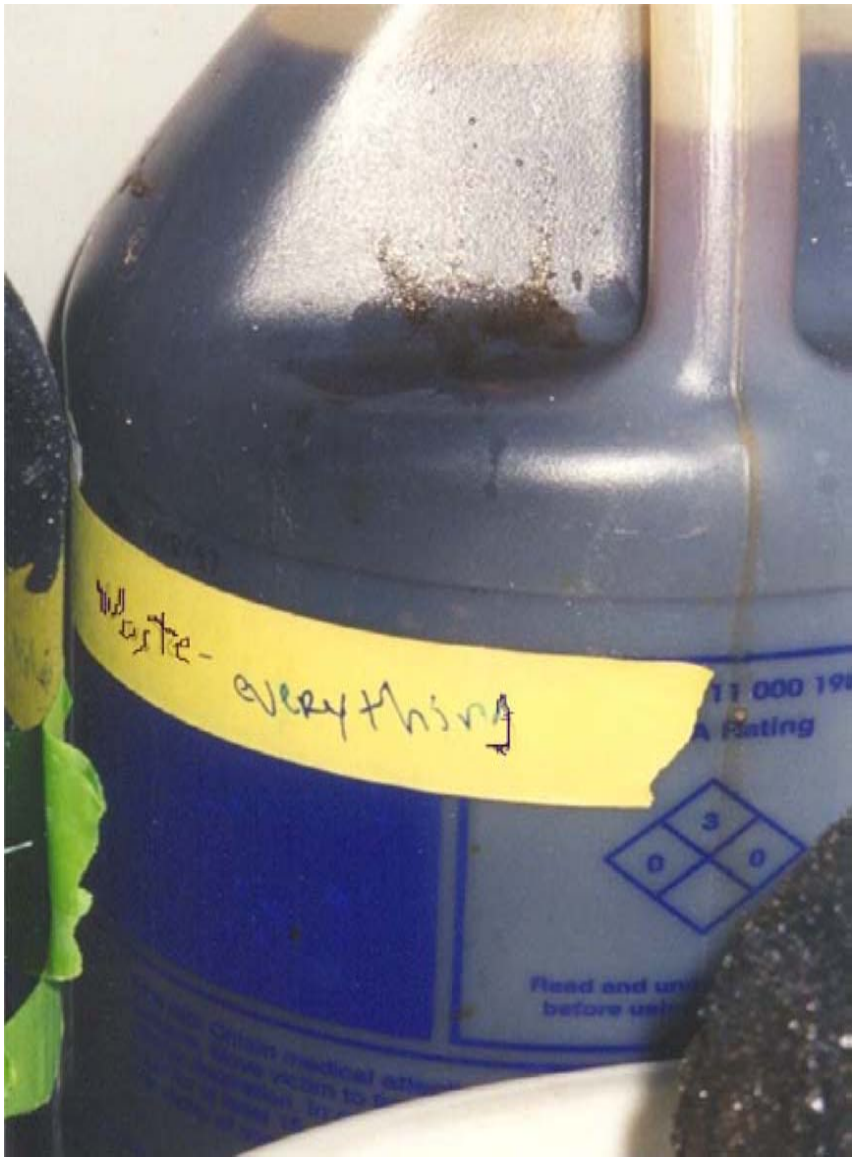
Waste - everything
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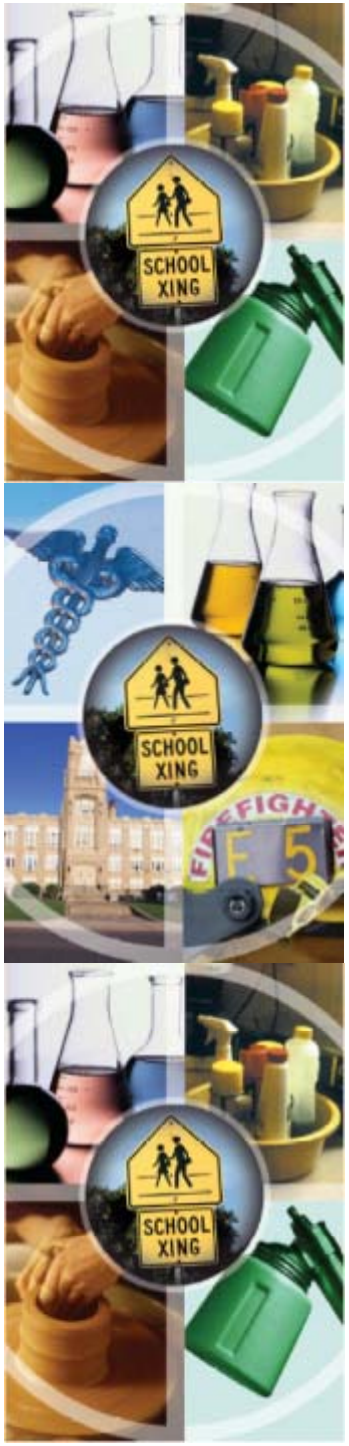
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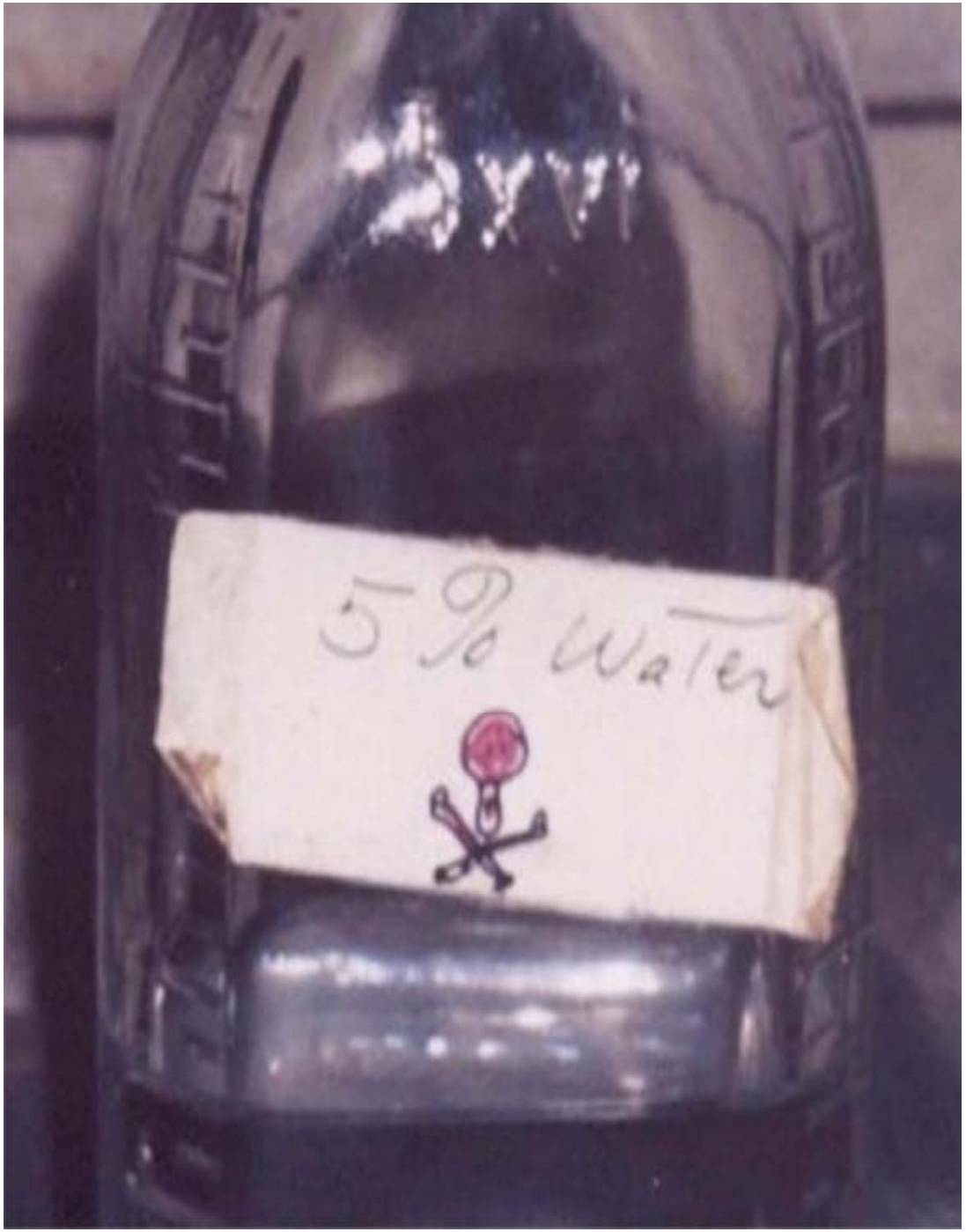
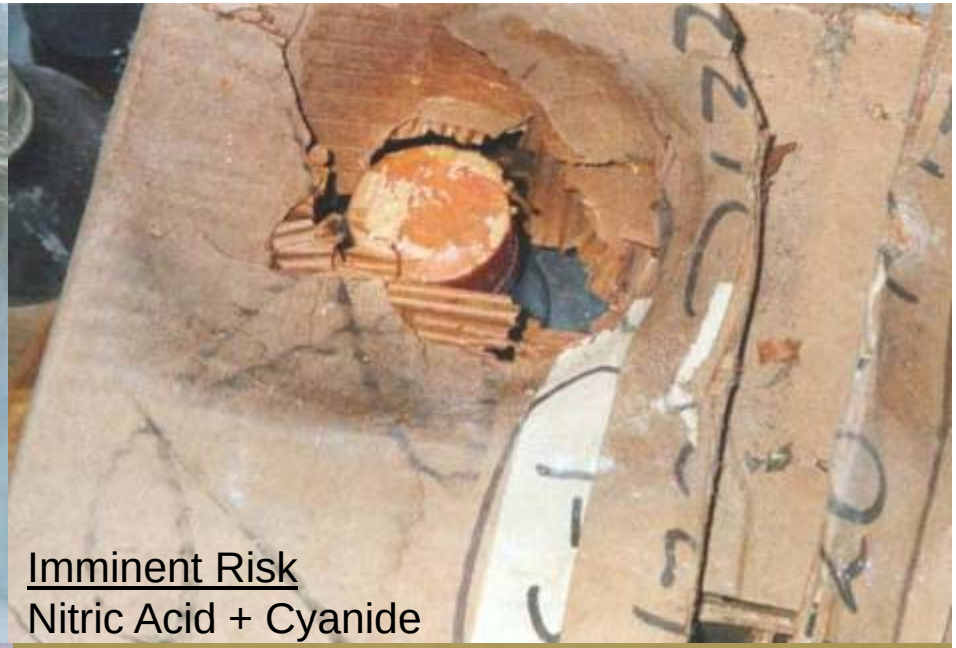
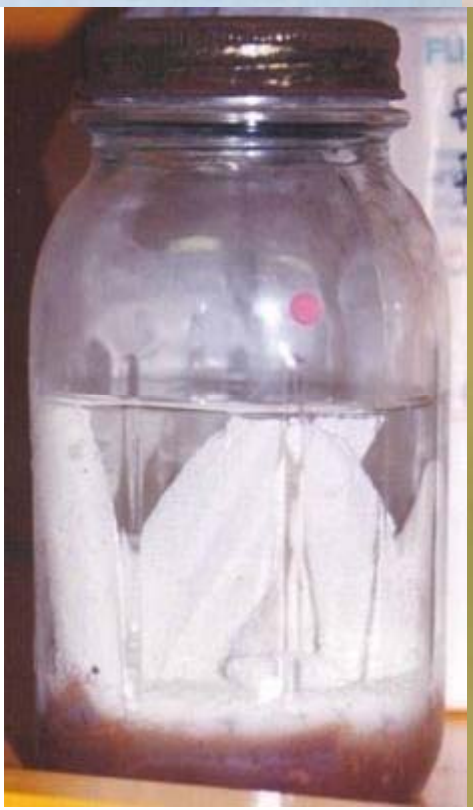

5% Water

Unknown, Unintended Chemical Reactions

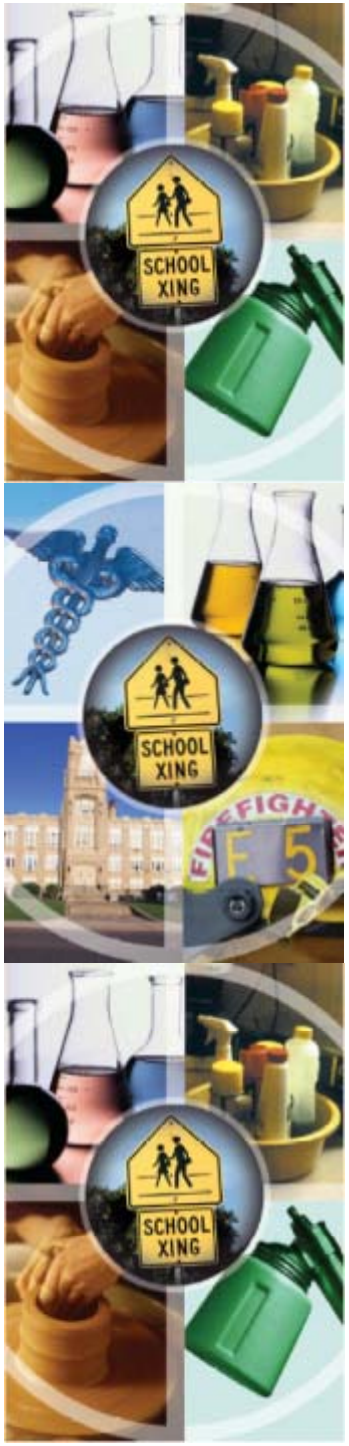


Imminent Risk
Nitric Acid + Cyanide

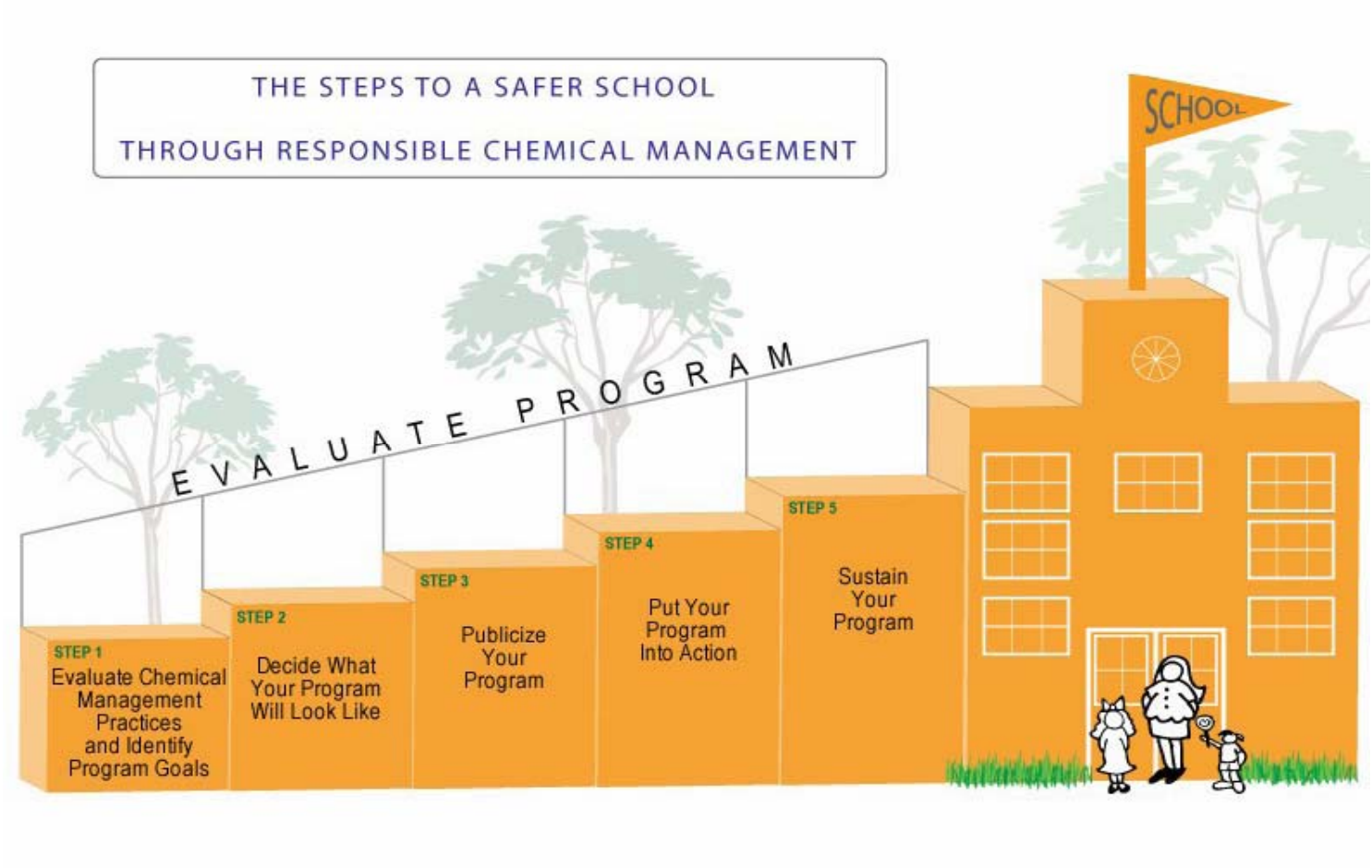
Potential Incidents

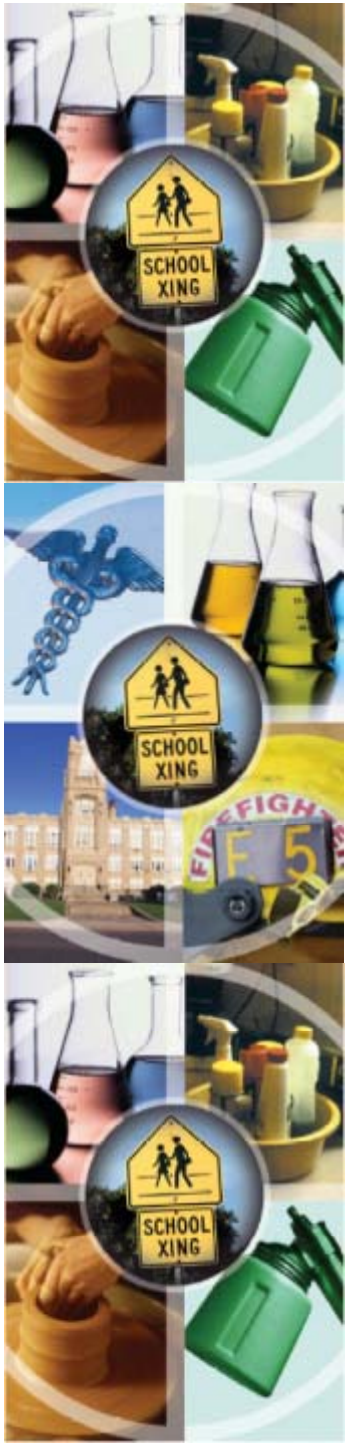


Imminent Risk
if water level drops ½ inch spontaneously ignites



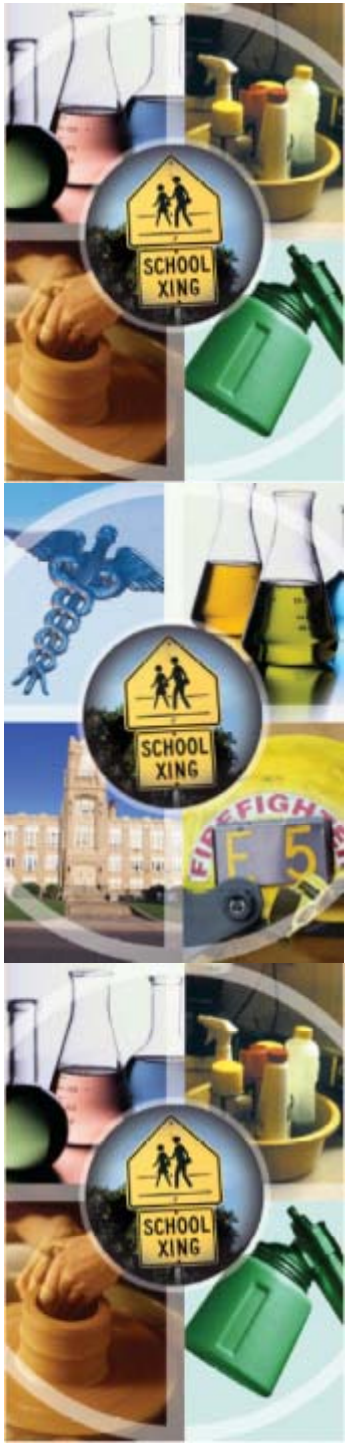
Steps for Creating a Responsible Chemical Management Program





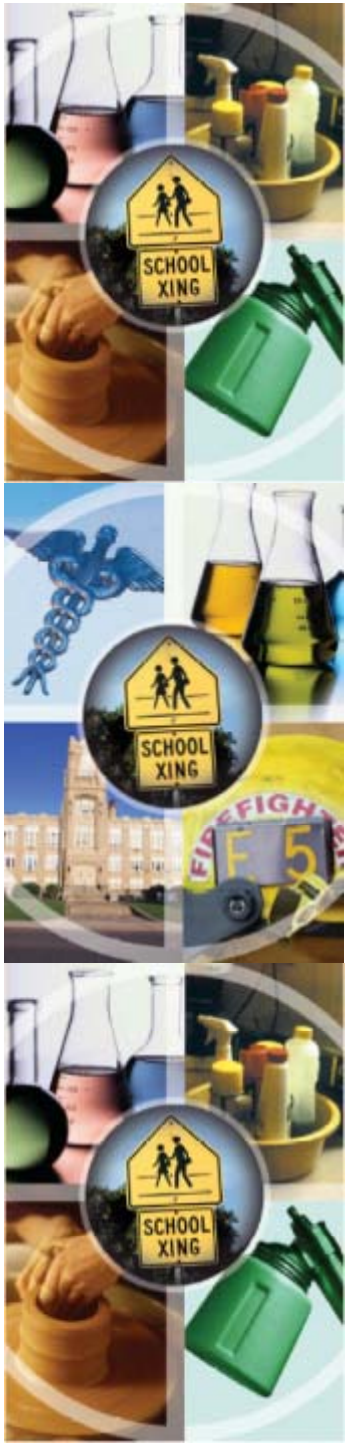
It’s All About Teamwork!

- Administrators, teachers, community members, facilities personnel, industry partners



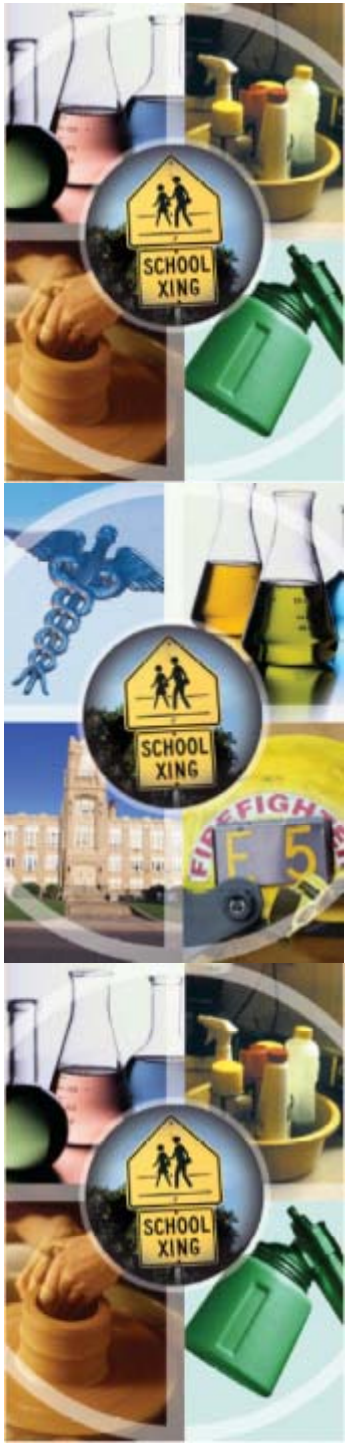
School Benefits

Are many!

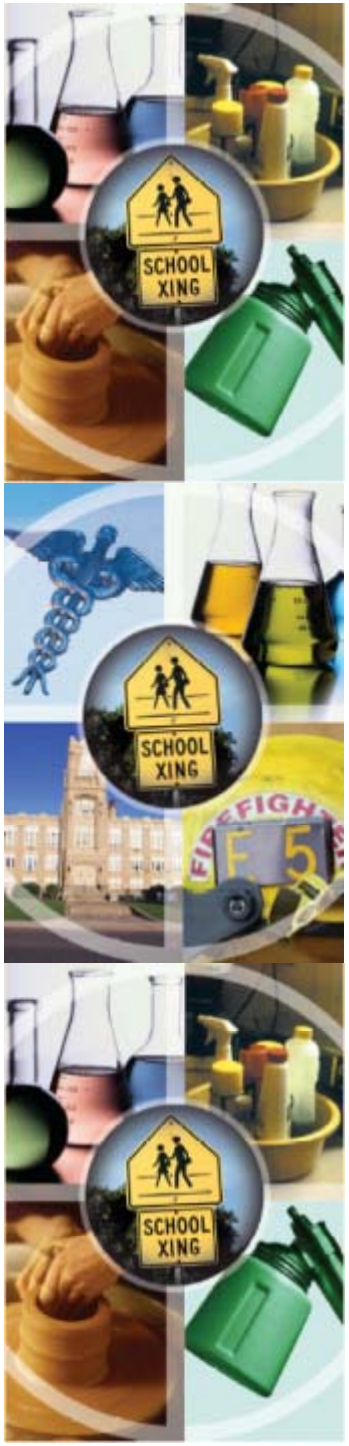


Partner Benefits

- Pride and satisfaction from improving school health and safety;
- Enhanced image as community leader;
- Local and federal recognition;
- Organizational visibility.

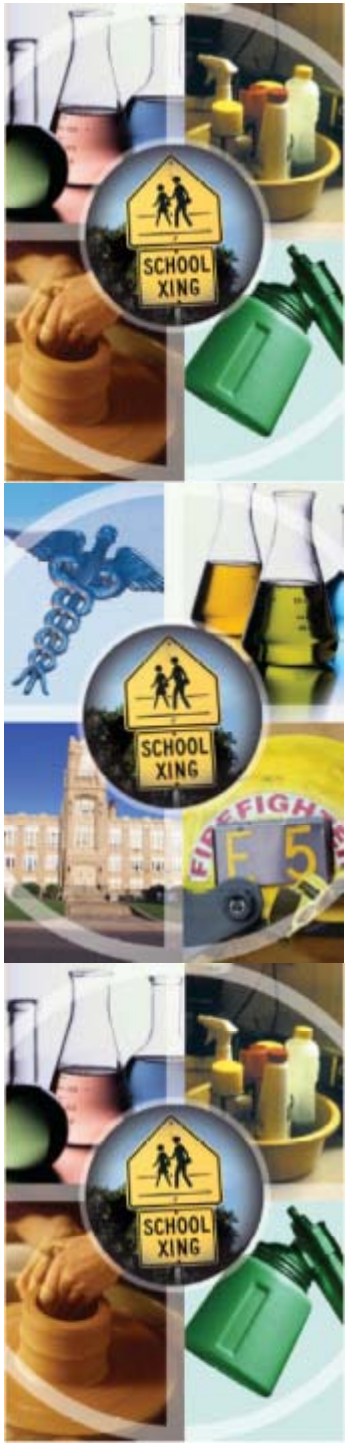


Partnerships Produce Results!



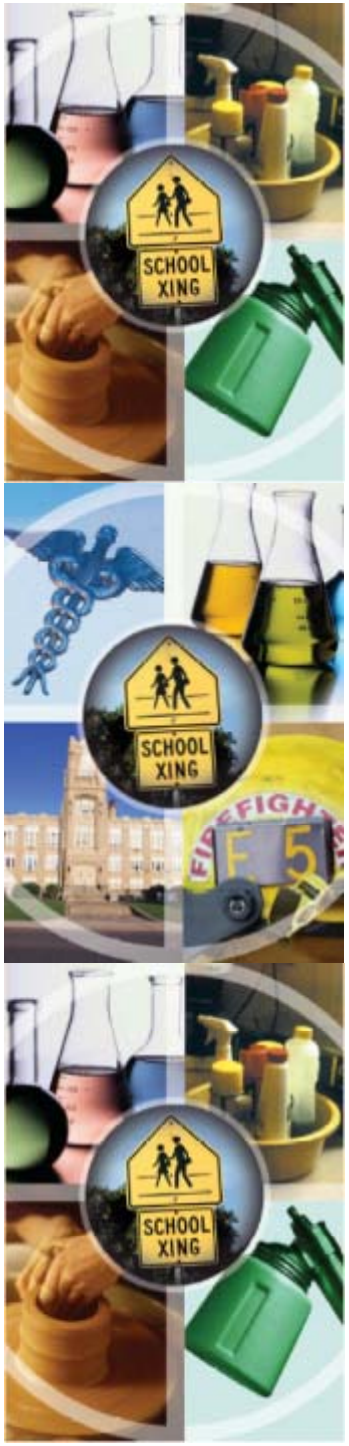
Remember:

- Every school is unique!
- Build on existing healthy school environments programs.
- Find the solutions that fit your needs.



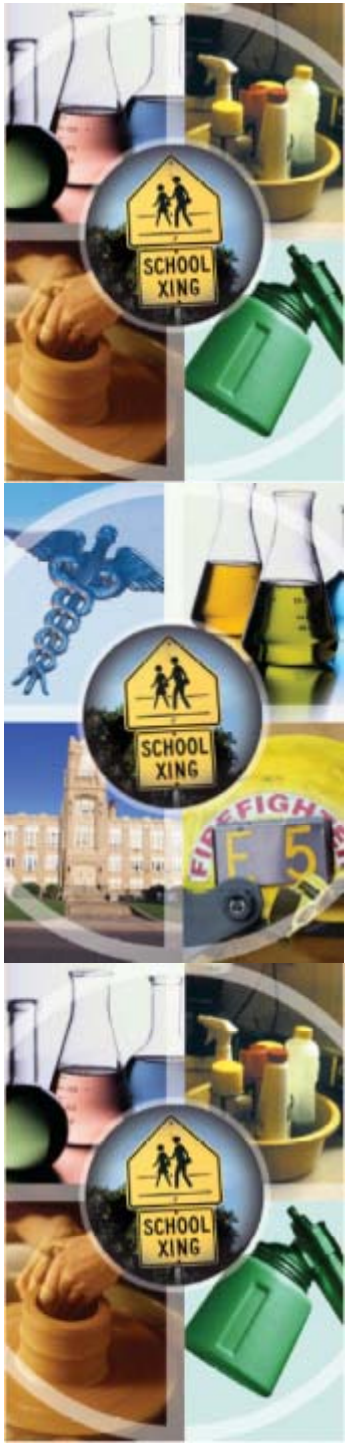
Preparing to Collaborate with a Partner

- Where are chemicals located;
  - What quantity of chemicals are stored, and quantity of chemicals that may need removal;
  - The general condition of the chemical containers;
  - The number of facilities that need help; and,
  - The number of students and staff affected.



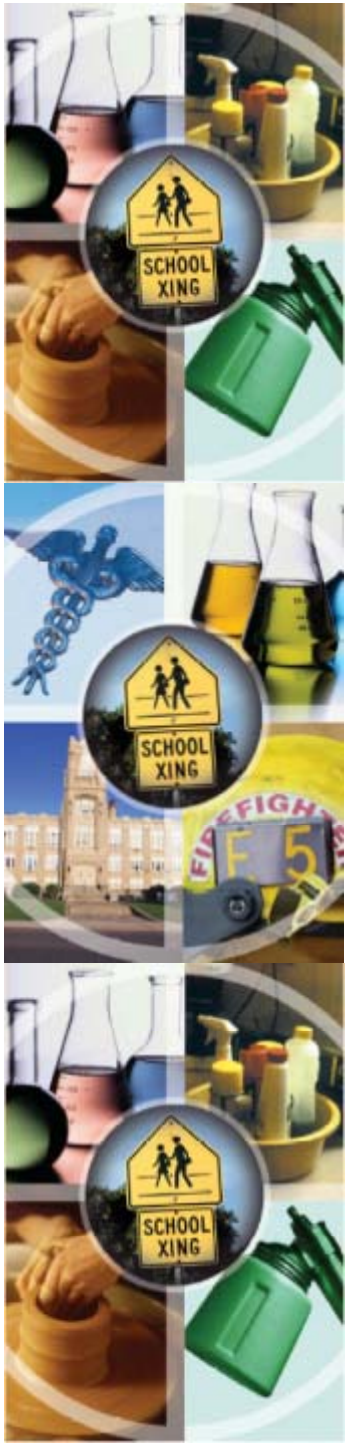
Preparing to Collaborate with Partners

- The school should have support from its leadership;
- The school should have an idea of what assistance they need and their priorities;
- The school should have a timeframe for planning process and implementation of various steps.
- An SC3 team for the school or school district should be in place or at least envisioned;



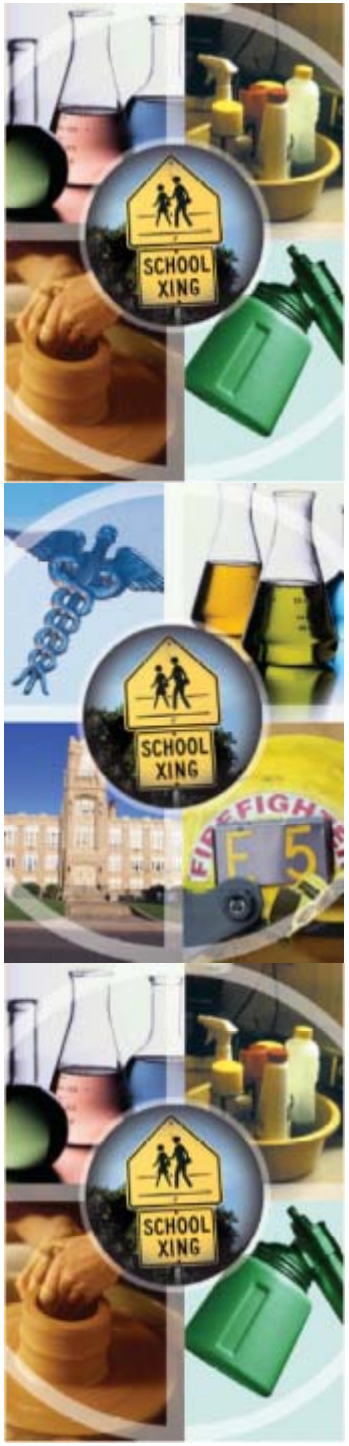
Questions Partners Should Consider

- Where is your organization located?
- Has your organization ever worked with a school or school district?
- What type of expertise can you offer to a school?
- What other organizations might you enlist to build a partnership team?



Getting Started: Helpful Tools and Resources

- **www.epa.gov/SC3**
  - SC3 Video: Safe Chemical Management in Your School
  - SC3 Workbook: Building Successful Programs to Address Chemical Risks in Schools
  - Green Cleaning Fact Sheet
  - Building Successful Programs to Address Chemicals in Schools: State Summaries
  - Success Stories
  - Comprehensive Partner Page



For More Information

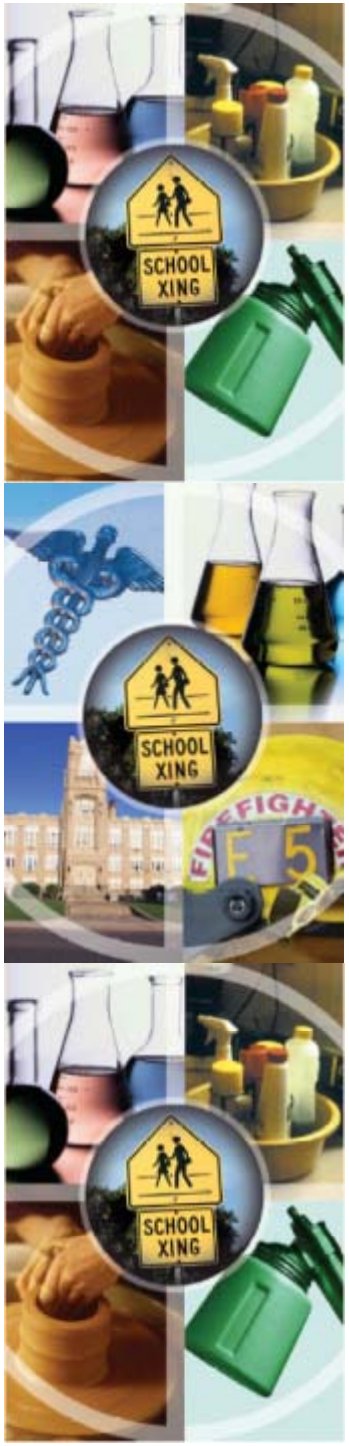
Kristina Meson

US EPA

Office of Resource Conservation and Recovery

(703) 308-8848

Meson.kristina@epa.gov



Establishing a School Chemical Management Plan as Part of an Overall Indoor Environmental Quality Program

THE SCHOOL DISTRICT OF PHILADELPHIA

OFFICE OF CAPITAL PROGRAMS

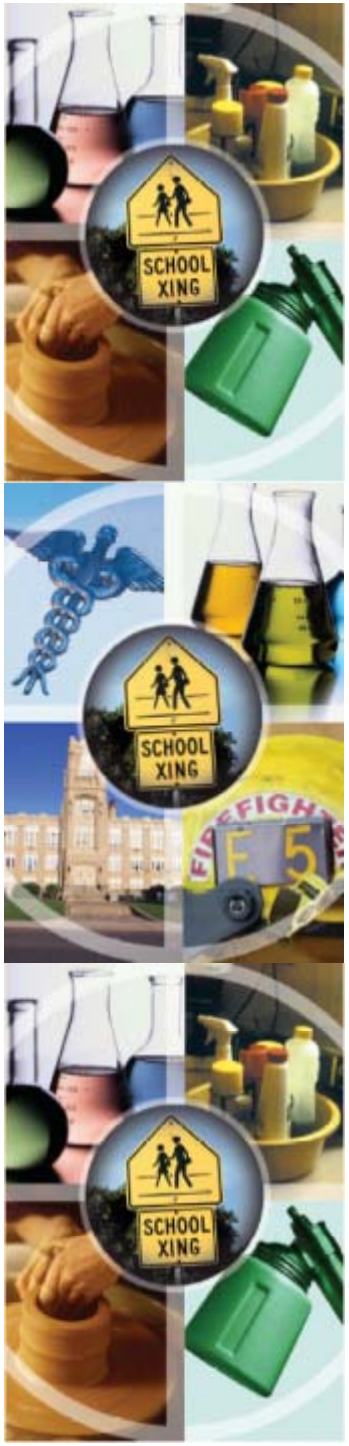
OEMS

The School District of Philadelphia
Office of Environmental Management Services

Indoor Air Quality Tools for Schools

Webinar Series

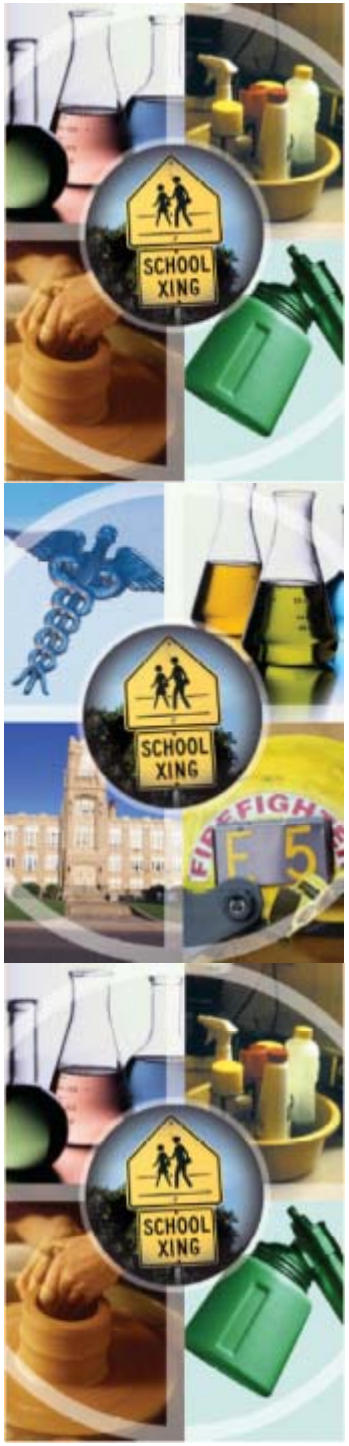
15 September 2010



School District of Philadelphia
Philadelphia, Pennsylvania

Profile

District Type:	Urban
Students:	163,000
Staff:	23,976
Number of Facilities:	433
Facility Age Range:	0-120 years; Avg. 63 years



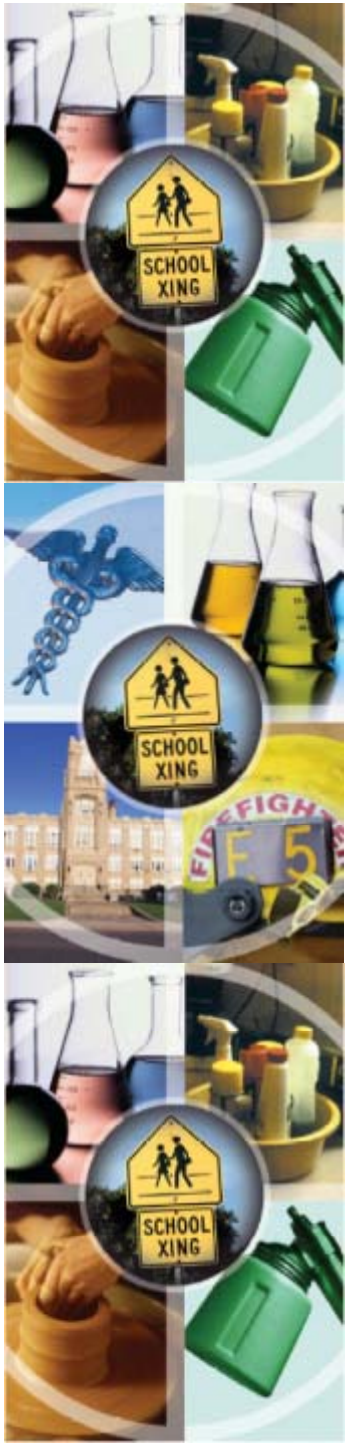
EPA Self-Disclosure Audit

Multi-Media and AHERA

The School District of Philadelphia has voluntarily participated in an EPA self-disclosure audit since 2008.

Positive Experience!

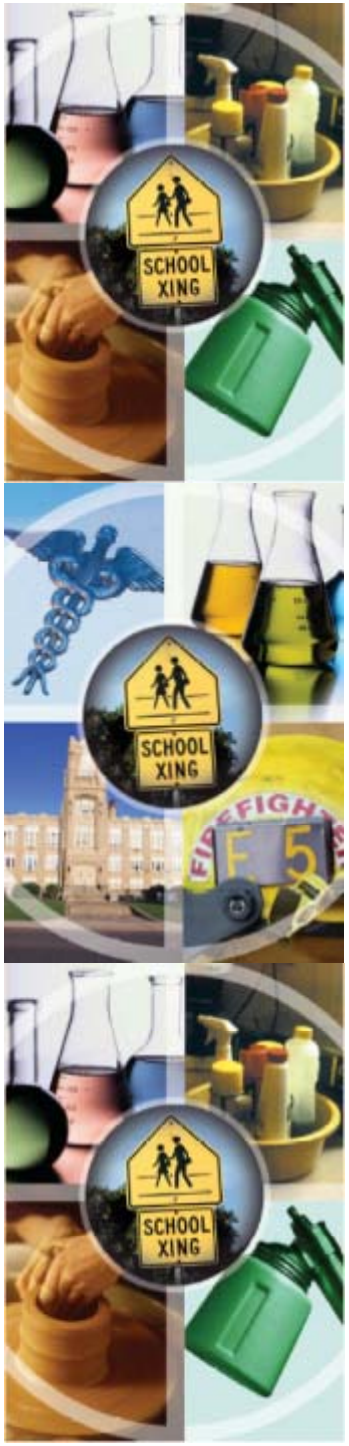
Several programs have evolved from the audit including a Universal Waste Management and a Laboratory Chemical Management Program.



The School District of Philadelphia's IEQ Management Program

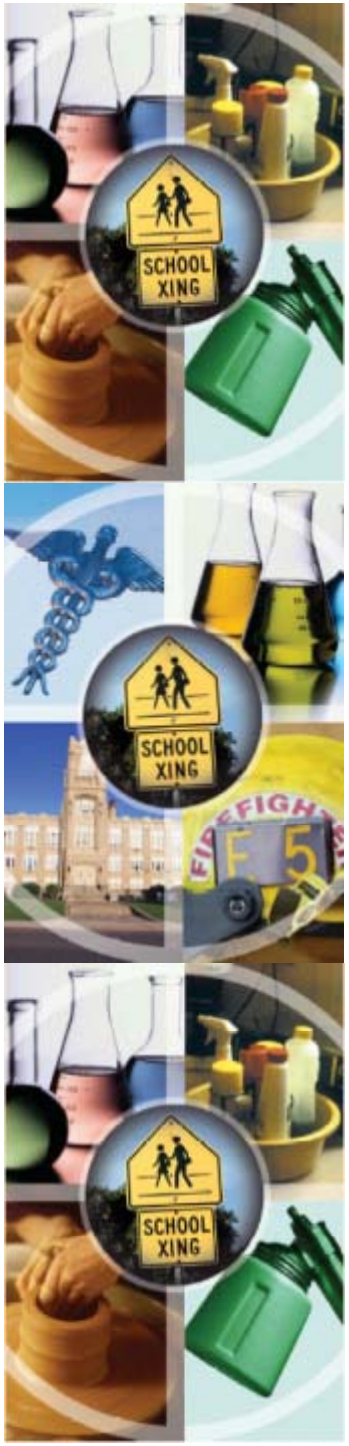
- **Overall IEQ Program Goal**: Indoor Environmental Quality (IEQ) Excellence for every school that supports academic achievement by providing facilities that are healthful and conducive to learning..

- **Potential Indicator**: The number of Indoor Environmental Quality (IEQ) Violations at each school. For example: Chemical Management Violation - improperly stored chemicals. Corrective action - Chemicals are properly stored and teacher, administrator, and/or facility manager is supplied with the support needed to provide proper chemical management.



The School District of Philadelphia's IEQ Management Program

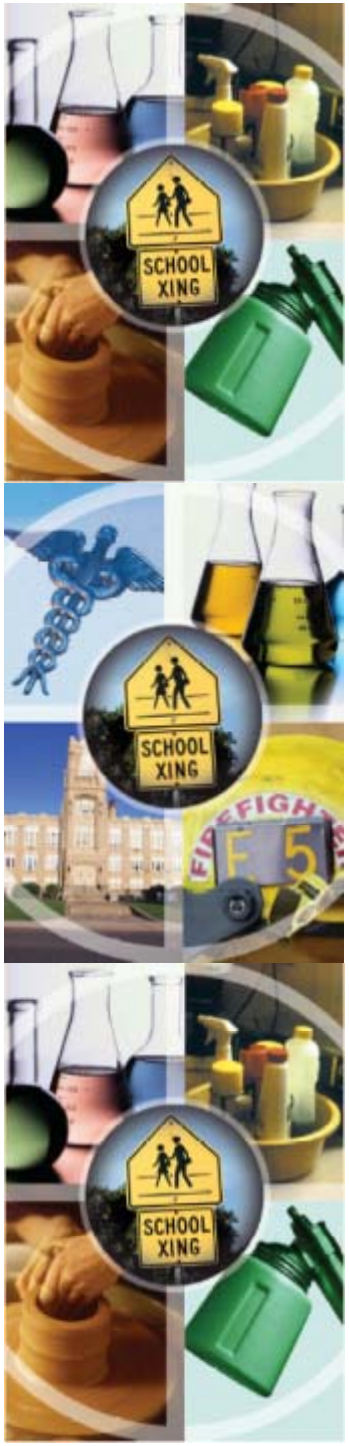
- **Performance Target for Indicator**: Zero IEQ issues.
  - Three possible outcomes for indicator per facility:
    - **Hit Target – IEQ Excellence – zero issues**
    - **Making Progress**
      - Positive movement, but unattained goal
    - **Needs Improvement**
      - Lack of positive progress from baseline
- Schools achieving the highest performance target will be designated as "Best Practice IEQ" schools.
- Schools with little or no progress will receive additional support.



15-minute Synopsis of a 734-Page Chemical Management Program

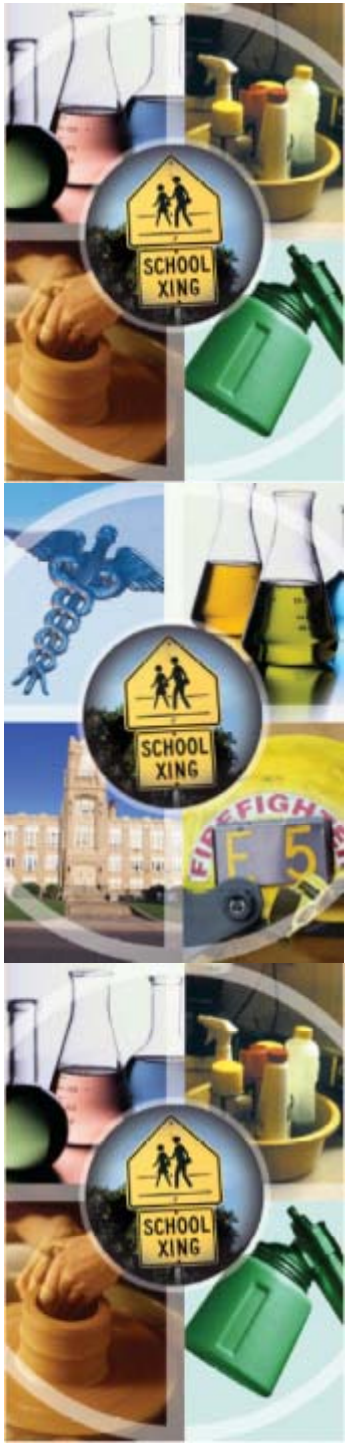
Key Components

- Put the program in writing
- Provide training
- Define an Approved Chemical List
- Create a current MSDS book and CD. Update periodically



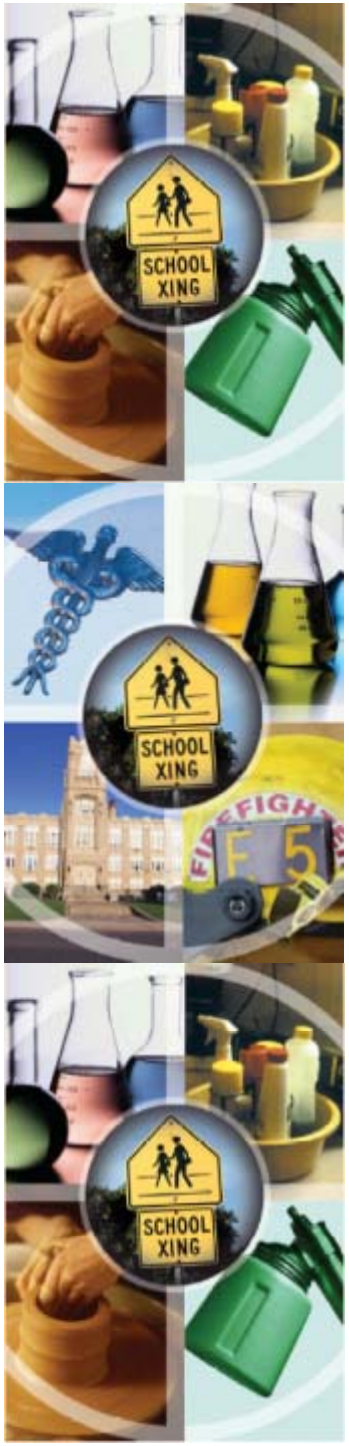
15-minute Synopsis of a 734-Page Chemical Management Program

- Obtain guidance from your Local Fire Department
- Determine criteria for removing chemicals from a facility's inventory – Our District's criteria are:
  1. Poor/deteriorated/damaged storage containers
  2. Unlabeled
  3. Unapproved
  4. Expired/outdated



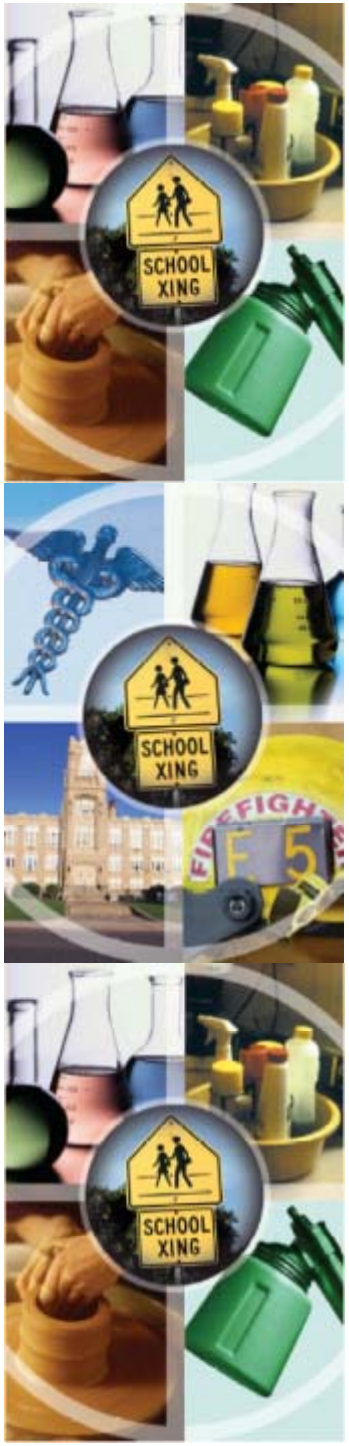
15-minute Synopsis of a 734-Page Chemical Management Program

- Identify, inspect and inventory all chemical storage areas
- Perform corrective actions in a timely fashion:
  1. Label chemical containers & storage areas
  2. Properly dispose of chemicals
  3. Create waste removal policies and continuous cycle of pick-ups



15-minute Synopsis of a 734-Page Chemical Management Program

- Restrict the purchase of unapproved chemicals and large quantities of any chemical.
- Develop a mechanism to add new chemicals to the approved list.



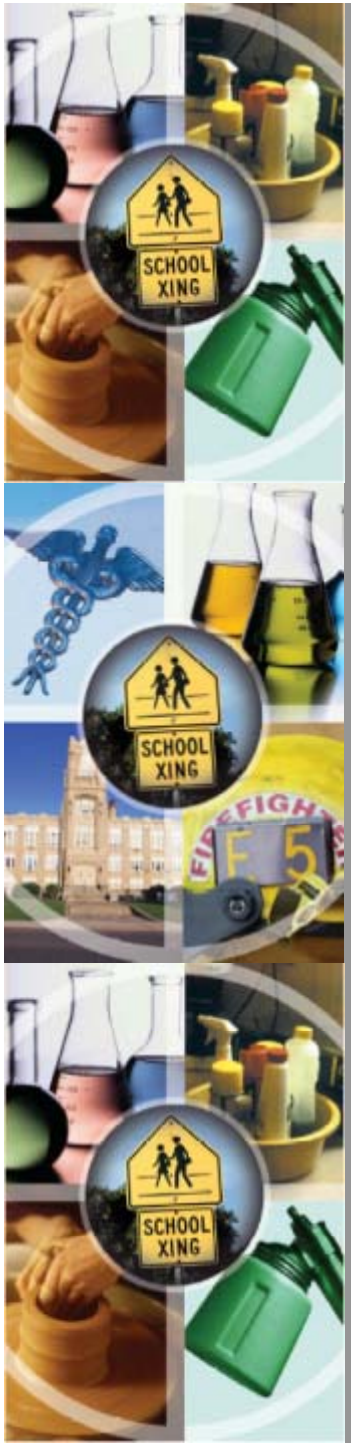
Approved Chemical List - 284 chemicals

How was it created?

- Environmental Consultant

Result:

- Approved chemicals have academic curriculum justification.
- Reduced exposure to students.
- Purchased only from approved list.
- Developed mechanism for adding new chemicals to approved list.



Proper Chemical Labeling & Storage

All Chemicals must be labeled with chemical name and segregated by hazard class:

- **RED:** Flammable.
- **BLUE**: Health Hazard.
- **YELLOW**: Reactive and oxidizing reagent.
- **WHITE**: Corrosive.
- **GRAY, GREEN or ORANGE**: Presents no more than moderate hazard.

Low Hazard

ORGANIC			INORGANIC		
CAS #	CHEMICAL	RATING	CAS #	CHEMICAL	RATING
50-81-7	Ascorbic Acid	0	9003-18-0	Agar	1
8015-86-9	Carnauba Wax	0	7429-90-5	Aluminum Metal	0
68955-54-9	Celite	1	10034-76-1	Calcium Sulfate (Hemi)	0
9004-34-6	Cellulose	1	10101-41-4	Calcium Sulfate (Di)	0
7440-50-8	Copper	0	mixture	Dish Detergent	0
548-62-9	Crystal Violet	1	7440-59-7	Helium	1
50-99-7	Dextrose	1	7722-84-1	Hydrogen Peroxide (<4%)	1
57-48-7	Fructose	0	7439-89-6	Iron Metal	0
59-23-4	Galactose	0	7439-89-6	Iron Powder	1
9000-70-8	Gelatin	0	7647-14-5	Sodium Chloride	0
50-99-7	Glucose	0	7440-31-5	Tin Metal	0
9000-01-5	Gum Arabic	1	7440-66-6	Zinc Metal	1
	Immersion Oil	1			
9001-57-4	Invertase	0			
63-42-3	Lactose	0			
8006-54-0	Lanolin	1			
1393-92-6	Litmus	1			
69-79-4	Maltose, D- (Anhyd)	0			
6363-53-7	Maltose, D- (Mono)	0			
471-34-1	Marble Chips				
8012-95-1	Mineral Oil	1			
8002-74-2	Paraffin	0			
73049-73-7	Pepsone	2			
144-55-8	Sodium Bicarbonate	0			
9005-84-9	Starch	0			
57-50-1	Sucrose	0			

Corrosives

ORGANIC			INORGANIC		
CAS #	CHEMICAL	RATING	CAS #	CHEMICAL	RATING
64-19-7	Acetic Acid (<1M)	0	12125-02-9	Ammonium Chloride	2
64-19-7	Acetic Acid (>6M)	3	7758-94-3	Ferrous Chloride (Anhyd)	2
64-19-7	Acetic Acid (1M - 6M)	2	7647-01-0	Hydrochloric Acid (<1M)	1
50-21-5	Lactic Acid	3	7647-01-0	Hydrochloric Acid (>6M)	3
2437-29-8	Malachite Green	2	7647-01-0	Hydrochloric Acid (1M-6M)	2
110-16-7	Maleic Acid	3	7553-56-3	Iodine	2
119-36-8	Methyl Salicylate	3	7697-37-2	Nitric Acid (<1M)	3
495-47-2	Ninhydrin	3	7697-37-2	Nitric Acid (>6M)	3
6153-56-6	Oxalic Acid (Di)	3	7697-37-2	Nitric Acid (1M-6M)	3
9001-75-6	Pepsin	2	mixture	pH 10 Buffer NH4OH	2
mixture	pH 4 Buffer Acetate	2	mixture	pH 10 Buffer Borate	2
877-24-7	pH 4 Buffer Biphthalate	2	mixture	pH 10 Buffer Clear	2
	pH 7.4 Buffer Tris	2	mixture	pH 7 Buffer Phosphate	2
	Polyurethane Foam-Part A	3	7664-38-2	Phosphoric Acid (<1M)	2
	Polyurethane Foam-Part B	3	7664-38-2	Phosphoric Acid (>6M)	3
877-24-7	Potassium Hydrogen Phthalate	2	7664-38-2	Phosphoric Acid (1M-6M)	3
69-72-7	Salicylic Acid	2	1310-58-3	Potassium Hydroxide (<1M)	2
532-32-1	Sodium Benzoate	2	1310-58-3	Potassium Hydroxide (>6M)	3
497-19-8	Sodium Carbonate	2	1310-58-3	Potassium Hydroxide (1M-6M)	3
85-83-6	Sudan IV	2	mixture	Soda Lime	3
	Sudan IV Solution	2	7681-38-1	Sodium Bisulfate (Mono)	3
76-61-9	Thymol Blue	2	7631-90-5	Sodium Bisulfite	2
			1310-73-2	Sodium Hydroxide (<1M)	2
			1310-73-2	Sodium Hydroxide (>6M)	3
			1310-73-2	Sodium Hydroxide (1M-6M)	2
			7681-52-9	Sodium Hypochlorite (<6%)	2
			10101-89-0	Sodium Phosphate (Tri)	2
			mixture	Sodium Silicate	2
			10476-85-4	Strontium Chloride (Anhyd)	2
			10025-70-4	Strontium Chloride (Hexa)	2
			7664-93-9	Sulfuric Acid (<1M)	2
			7664-93-9	Sulfuric Acid (>6M)	3
			7664-93-9	Sulfuric Acid (1M-6M)	2

Health

ORGANIC			INORGANIC		
CAS #	CHEMICAL	RATING	CAS #	CHEMICAL	RATING
8004-87-3	Methyl Violet	2	7785-87-7	Manganese (II) Sulfate (Anhyd)	3
61-73-4	Methylene Blue (Anhyd)	2	10034-96-5	Manganese (II) Sulfate (Mono)	2
7220-79-3	Methylene Blue (Tri)	2	7447-40-7	Potassium Chloride	2
59-67-6	Niacin	2	13746-66-2	Potassium Ferricyanide	2
8049-47-6	Pancreatin	2	7681-11-0	Potassium Iodide	2
143-74-8	Phenol Red	2	7758-11-4	Potassium Phosphate (Di)	2
77-09-8	Phenolphthalein	2	7778-77-0	Potassium Phosphate (Mono)	2
57-55-6	Propylene Glycol	2	7778-53-2	Potassium Phosphate (Tri)	2
mixture	Ringer's Solution	2	333-20-0	Potassium Thiocyanate	2
11121-48-5	Rose Bengal	2	63231-67-4	Silica Gel	2
127-09-3	Sodium Acetate (Anhyd)	2	1330-43-4	Sodium Borate	2
6131-90-4	Sodium Acetate (Hyd)	2	7647-15-6	Sodium Bromide	2
68-04-2	Sodium Citrate	2	7681-82-5	Sodium Iodide	2
54-21-7	Sodium Salicylate	3	7558-79-4	Sodium Phosphate (Di-Anhyd)	2
85-86-9	Sudan III	2	7782-85-6	Sodium Phosphate (Di-Hepta)	2
85-86-9	Sudan III Alcohol Solution	2	10049-21-5	Sodium Phosphate (Mono)	2
89-83-8	Thymol	2	7757-83-7	Sodium Sulfite	3
mixture	Universal Indicator	2	540-72-7	Sodium Thiocyanate	2
67-13-6	Urea	3	7772-98-7	Sodium Thiosulfate (Anhyd)	3
			10102-17-7	Sodium Thiosulfate (Penta)	2
			7772-99-8	Stannous Chloride	3
			14807-96-6	Talc	2
			1314-13-2	Zinc Oxide	2

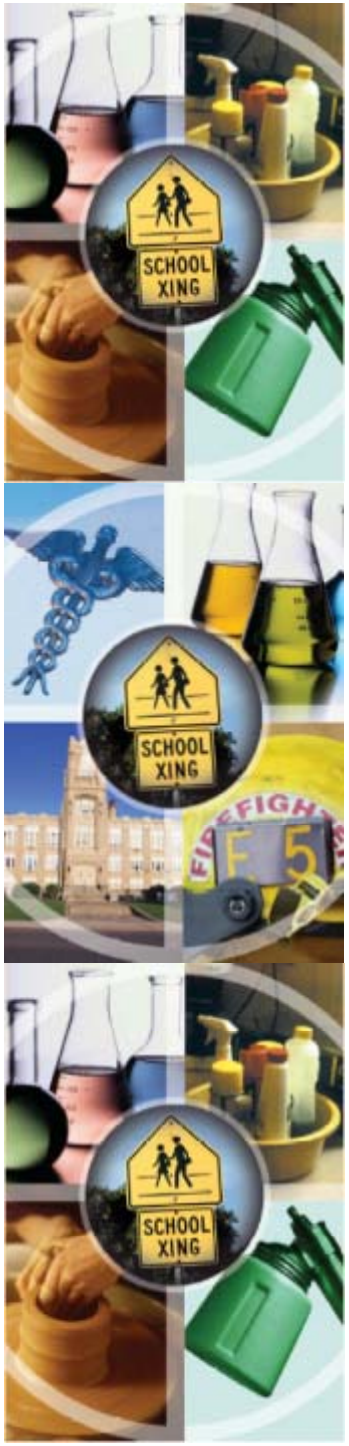
Reactive

ORGANIC			INORGANIC		
CAS #	CHEMICAL	RATING	CAS #	CHEMICAL	RATING
77-92-9	Citric Acid	2	6484-52-2	Ammonium Nitrate	3
			10043-52-4	Calcium Chloride (Anhyd)	2
			7778-54-3	Calcium Hypochlorite	3
			10124-37-5	Calcium Nitrate (Anhyd)	3
			13477-34-4	Calcium Nitrate (Tetra)	2
			7789-45-9	Copper Bromide	2
			3251-23-8	Copper Nitrate (Anhyd)	3
			19004-19-4	Copper Nitrate (Hemi)	2
			10031-43-3	Copper Nitrate (Tri)	2
			7782-61-8	Ferric Nitrate (solution)	3
			10421-48-4	Ferric Nitrate (powder)	3
			10099-74-8	Lead Nitrate	3
			7790-69-4	Lithium Nitrate	2
			10377-60-3	Magnesium Nitrate (Anhyd)	2
			13446-18-9	Magnesium Nitrate (Hexa)	2
			1313-13-9	Manganese Dioxide	2
			3811-04-9	Potassium Chlorate	3
			7778-50-9	Potassium Dichromate	3
			7758-05-6	Potassium Iodate	3
			7757-79-1	Potassium Nitrate	3
			7722-64-7	Potassium Permanganate	2
			7761-88-8	Silver Nitrate	3
			7631-99-4	Sodium Nitrate	3
			7757-82-6	Sodium Sulfate	2
			10042-76-9	Strontium Nitrate	2
			10196-18-6	Zinc Nitrate (Hexa)	2
			1314-98-3	Zinc Sulfide	3

Flammable

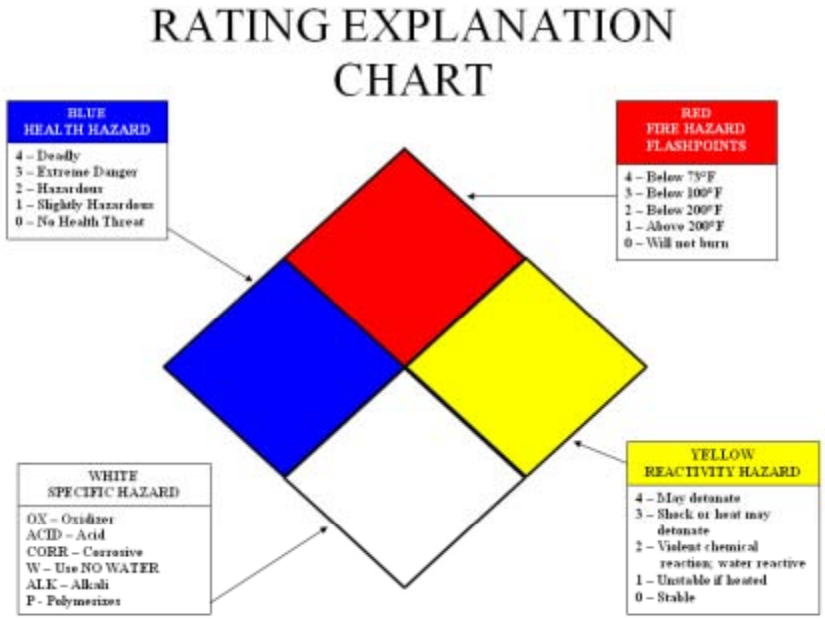
ORGANIC			INORGANIC		
CAS #	CHEMICAL	RATING	CAS #	CHEMICAL	RATING
67-64-1	Acetone	2	7782-42-5	Graphite	2
71-36-3	Butanol	3		Iodine Tincture	2
75-20-7	Calcium Carbide	3	7439-95-4	Magnesium Metal	2
9000-71-9	Casein	2	7704-34-9	Sulfur - Precipitated	3
573-58-0	Congo Red	3	8001-26-0	Vegetable Oil	2
9000-92-4	Diastase Malt	2			
64-17-5	Ethanol	2			
141-78-6	Ethyl Acetate	3			
60-00-4	EDTA	2			
110-54-3	Hexane	3			
67-63-0	Isopropanol	1 (3)			
69-65-8	Mannitol	2			
67-56-1	Methanol	3			
	Molisch Reagent	3			
112-80-1	Oleic Acid	3			
71-23-8	Propanol	3			
57-11-4	Stearic Acid	2			
87-69-4	Tartaric Acid	2			
98988-92-1	Wright's Stain Solution	2			
7440-66-6	Zinc Powder	3			

These are storage area labels with hazard class at top, color-coded with lists of all approved chemicals under the specified hazard class.

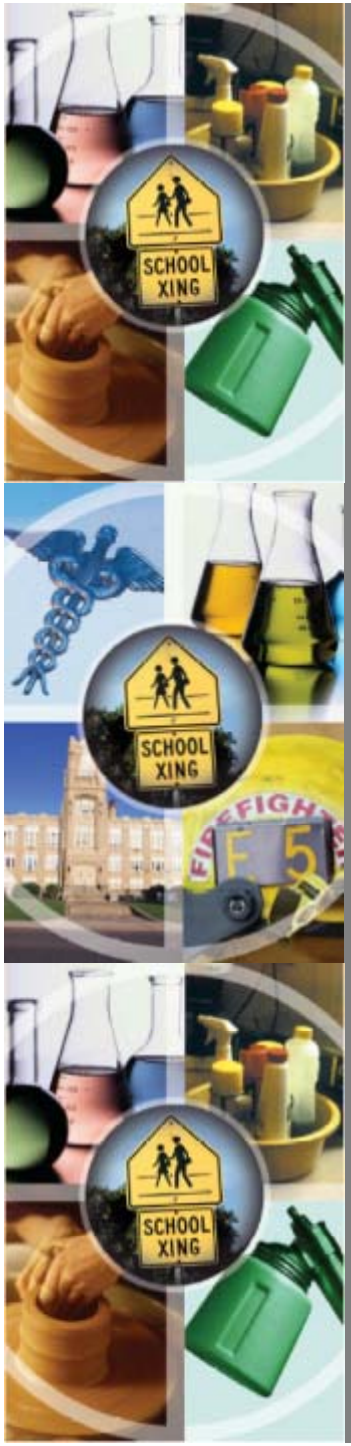


Labeling Storage Areas

NFPA Diamond and HMIS Label *(Hazardous Material Information System)*

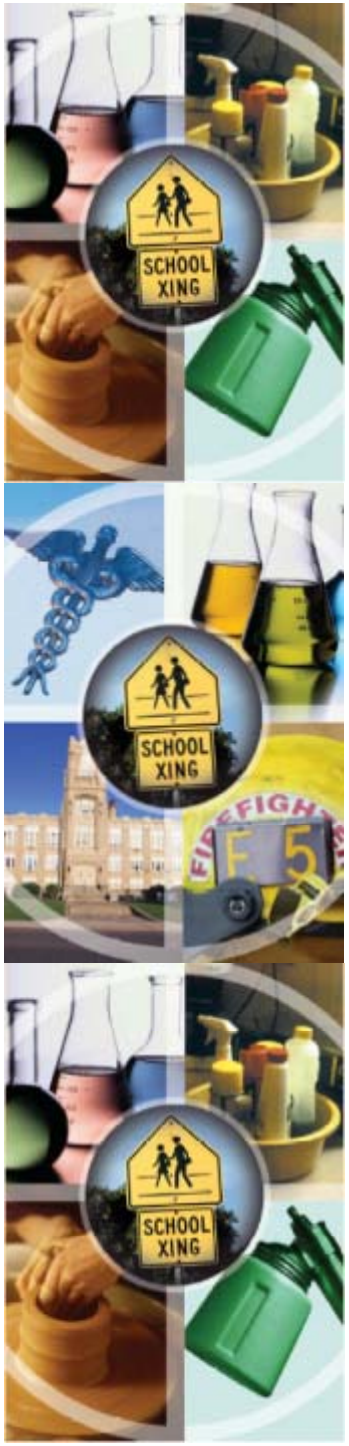


Danger sign on Chemical Storage Area



Inventory

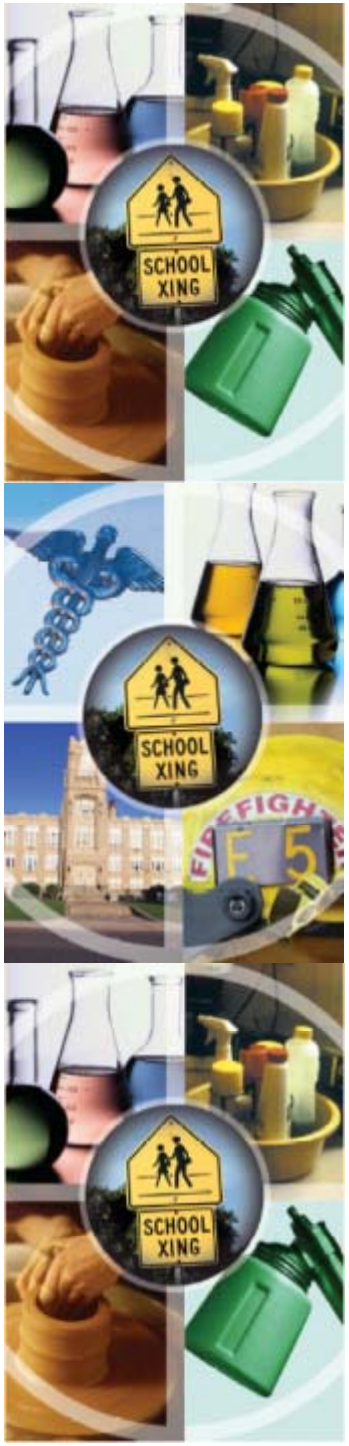
- Conduct a baseline inventory.
- Work with EPA's SC3 Program for Industry Partners who can help with this process.
- NEVER involve students when doing this – other than



Waste Disposal Process

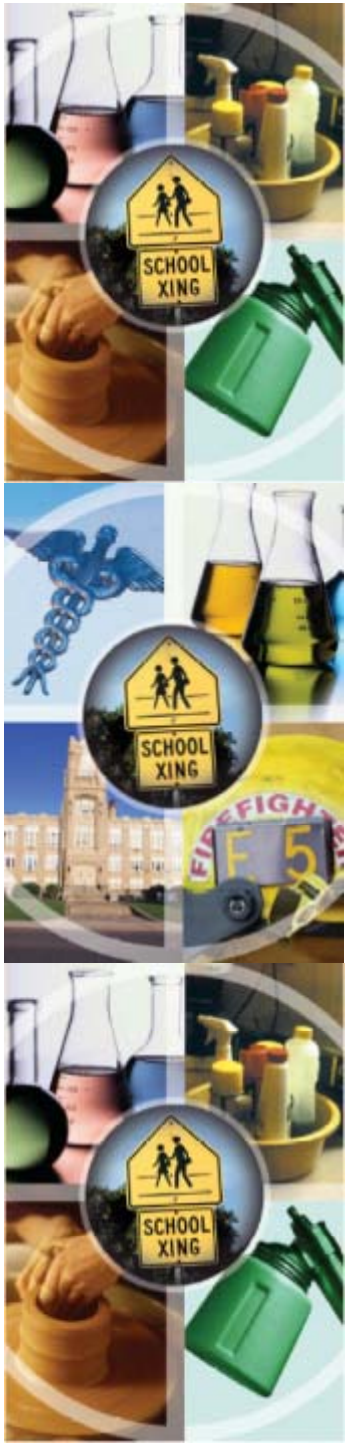
All waste should be:

- Clearly labeled and dated
- Segregated by type and compatibility
- Labeled as “Hazardous” or “Potentially Hazardous” with the date and type of hazard
- Inspected for leaks and damage regularly
- Stored until properly disposed
- Never go to a drain! Label sinks – “No Chemicals!”
- Tracked disposal



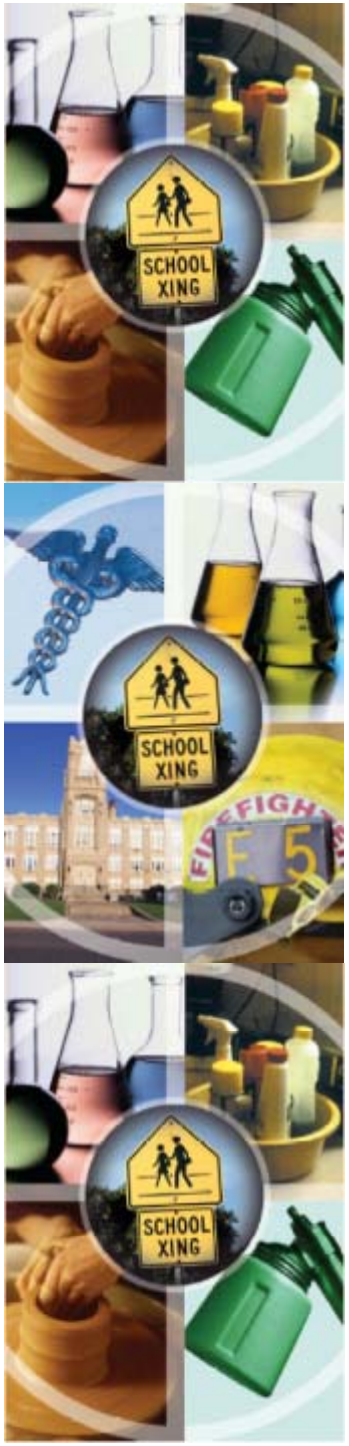
Recap of Key Components

- Re-Audit schools for approved chemicals.
- Maintain current active chemical inventories. Perform periodically.
- Ensure the current MSDS are easily accessible – and provided to local Fire Department
- Properly store and label all chemicals.
- Have a chemical disposal procedure.



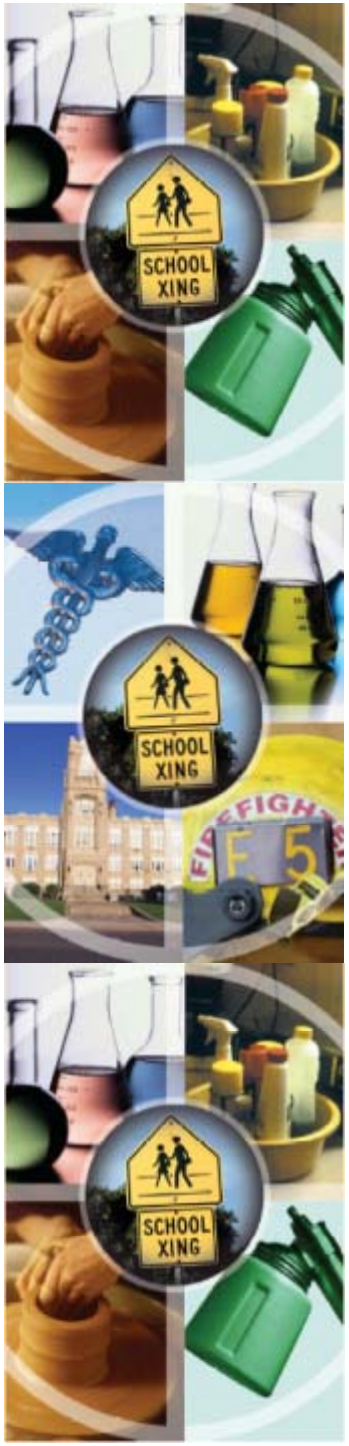
Recap of Key Components

- Have a sustainable written program
- Baseline Assessment
- Provide training periodically
- EPA Self-Disclosure Audit
- SC3 Industry Partners



Our Results So Far…

- Decrease in emergency responses to chemical spills.
- Decrease in number of emergency chemical clean-outs of storage areas when staff change classrooms/labs, or reorganization of facilities.
- ***Bottom Line – Safer environments while supporting the academic curriculum!***



Resources

- ***Schools Chemical Cleanout Campaign Lessons Learned Report***, January 30, 2009, TechLaw,Inc, for the USEPA;
- ***Laboratory Waste Minimization and Pollution Prevention, A Guide for Teachers in Pennsylvania***, June 2003, by the Pacific Northwest National Laboratory, operated by Battelle Memorial Institute for the U.S. Department of Energy under Contract DE-AC06- 76RLO 1830;
- ***Safety Guidelines for Technology Education & Elementary Science/Technology Education***, Pennsylvania Department of Education, Bureau of Curriculum and Academic Services, Division of Curriculum and Instruction;
- ***School Chemistry Laboratory Safety Guide***, October 2006, NIOSH, US Consumer Product Safety Commission and CDC.
- Pennsylvania Chemical Industry Education Foundation (717) 232-6681.
- American Chemical Society. (1993). Less is better: Laboratory chemical waste management for waste reduction (2nd ed.). Washington, DC: Author.
- American Chemical Society (1995). Model Chemical Hygiene Plan for High Schools. Washington, DC: Author. Available on disk: MacOS or MS-DOS.
- National Research Council. (1983). Prudent practices for disposal of chemicals from laboratories. Washington, DC: National Academy Press.

Partnering to Make a Difference in Our Schools

Cement Kiln Recycling Coalition and the School Chemical Cleanout Campaign (SC3)

Indoor Air Quality Tools for Schools
Webinar Series
15 September 2010

CKRC
CEMENT KILN RECYCLING COALITION

- Who is CKRC?
  - The Cement Kiln Recycling Coalition is a national trade association representing cement manufacturers in the U.S. that recycle the value in energy-bearing wastes by using them as fuel in kilns that produce Portland cement. CKRC also represents companies that collect, process, manage, and market waste-derived fuels for use in cement kilns.

An Industry with Expertise in Chemical Management and Member Companies with a Desire to Help

CKRC Member Companies

Ash Grove Cement Co.
- Cement Plants
- AR, KS

Ashland Distribution
- OH

Buzzi Unicem USA
- Cement Plants
- IN, MO

Cadence Environmental Energy
- Fuel Supplier
- IN

Continental Cement Company
- Cement Plants
- MO

Essroc Corporation
- Cement Plants
- IN

Giant Cement Holding Inc.
- Cement Plants
- PA, SC

Giant Resource Recovery
- Fuel Supplier
- PA, SC (Sumter, Harleyville), TX (Aerosols, Arvonia)

Holcim (US) Inc.
- Cement Plants
- SC

Lafarge North America, Inc
- Cement Plants
- KS, OH

PSC
- Fuel Blenders
- AL, CA, MI, MO, TX, WA

Rineco
- Fuel Blenders
- AR

Schreiber, Yonley and Associates
- Consultants
- MO

Systech Environmental Corp.
- Fuel Supplier
- KS, OH

Tradebe/Pollution Control Industries, Inc.
- Fuel Blenders
- IN, TN

Trinity Consultants
- Consultants
- KS

- Why SC3?
  - Goals: remove unnecessary chemicals from sensitive environments; Facilitate responsible chemical management; and Raise awareness of chemical risks at all levels in our schools.
  - Unique: Brings together a variety of partners with different expertise to achieve its goals.
  - Community Service: Industry partners, like CKRC's member companies, donate time and resources to facilitate a school clean up.

Multi-faceted Partnership Approach is Key to SC3's Success

- Considering Involvement
  - Extent of risks posed by harmful chemicals in schools can seem daunting and sometimes paralyzes potential partners to the point they decide NOT to get involved
  - However, any contribution you make to the partnership facilitates success of the effort to clean up a school

Each School We Clean Up Brings Us One Step Closer to Reaching Every School in Need

Grandview High School, Grand View, MO

- Educate, Encourage and Facilitate member companies to get involved
- Serve as a proponent of the SC3 program within the CKRC membership and beyond
- Overall goal is to get every CKRC member company involved in an SC3 project in some way in the future

CKRC Became a Charter Member of SC3 in 2007

2007 Charter Member Ceremony at Wakefield High School in Arlington, VA

- Tradebe/Pollution Control Industries, Inc.
- Ash Grove Cement Company
- Cadence Environmental Energy, Inc.
- Giant Cement Company

Some CKRC Member Company Successes to Date

Cheyenne River Sioux Reservation School Cleanout

Cheyenne River Sioux Reservation
Dupree High School

Clean Up in process at Grandview High School in Grandview, MO

- The Children
- Benefit of Community and Schools
- Using our Expertise to Make a Difference

What Draws Industry Partners to a Program Like SC3?

Grandview High School Tree Planting Ceremony after a Successful Clean-up

Student from Dupree High School on the Cheyenne River Sioux Reservation (Eagle Butte, SD) , the Tribal Environmental Protection Agency and Representatives from Tradebe recognized at an awards ceremony in Washington, DC

- Key Contact at the Schools
- Schools Often Apprehensive About Agreements and Getting Involved
- Time identifying and Developing Projects
- Costs, Partnering is Key
- Identifying Partners to Handle Wide Variety of Wastes from Clean Outs

What are some of the barriers to getting involved?

Four R's to Motivate Involvement:

REALITY

RESOURCES

RECOGNITION

RELATIONSHIPS

Ways to Motivate Entities to Get Involved

Problems are REAL and RESOURCES are needed

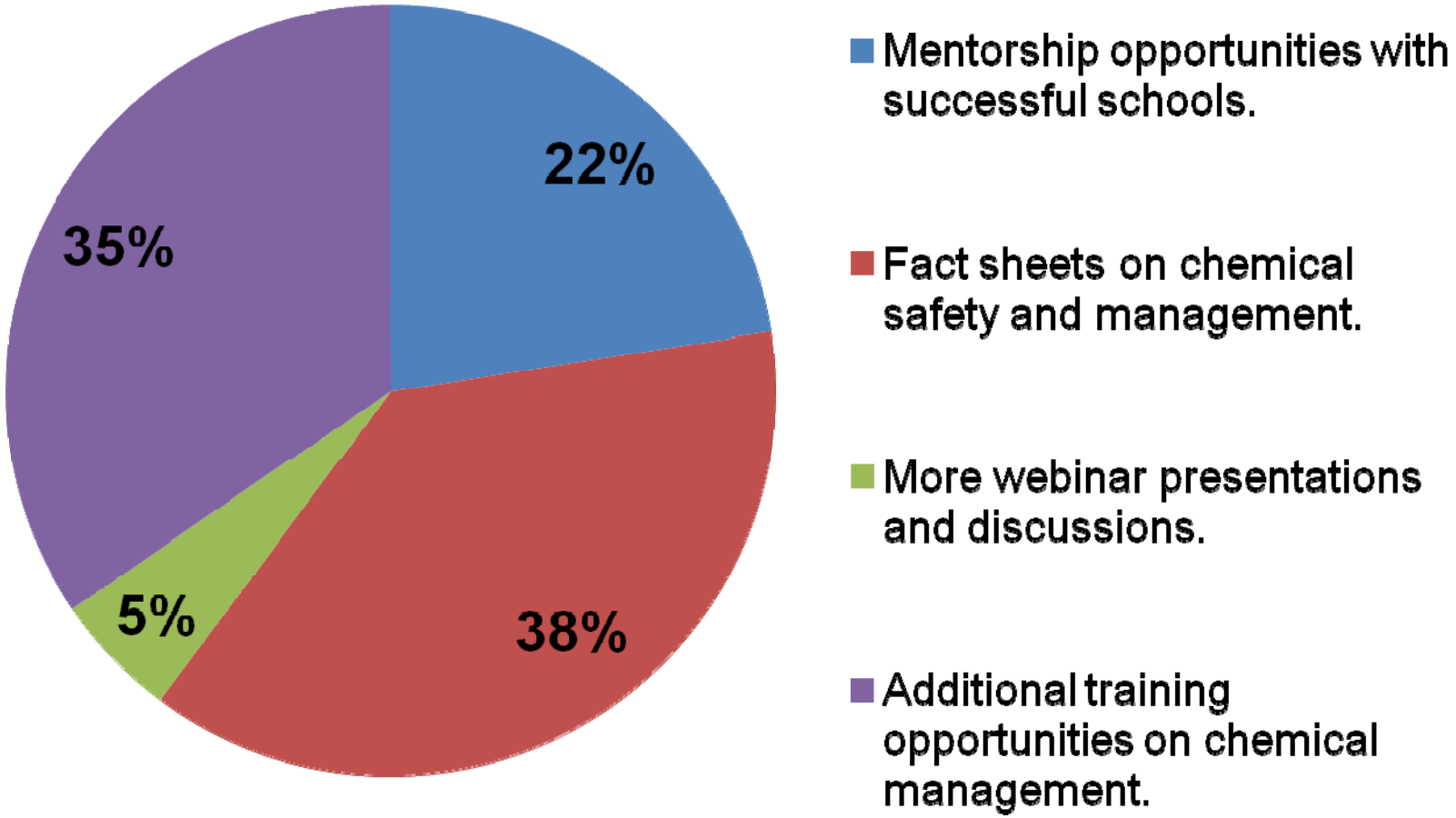
RECOGNIZE partnership efforts and build & maintain RELATIONSHIPS

SC3 Awards Ceremony in Washington, DC October 2009

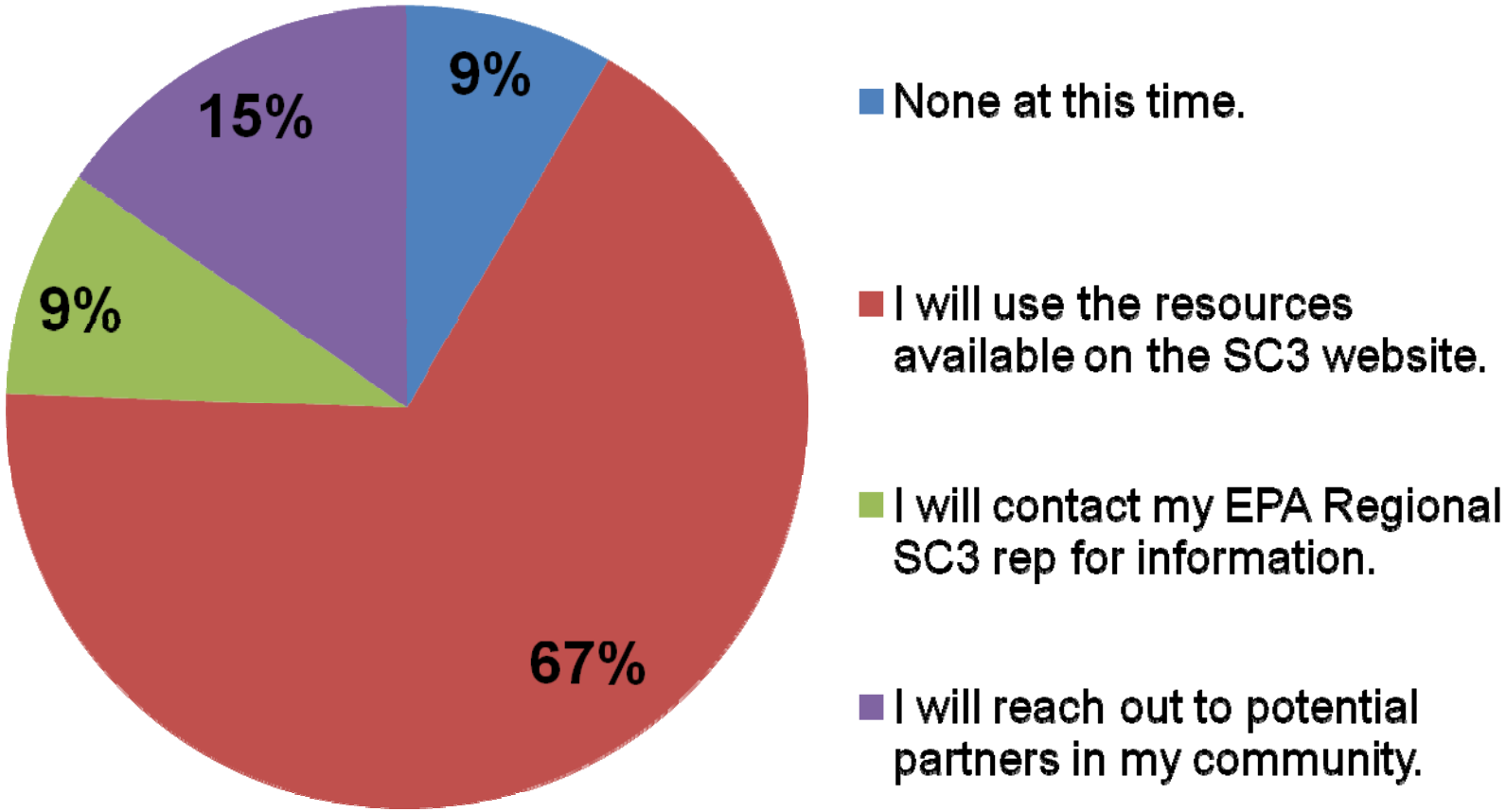
Cement Kiln Recycling Coalition
(SC3 Charter Member)
Michelle Lusk
Director, Environmental Affairs
and SC3 Program Involvement
mlusk@ckrc.org
703-534-0892

Be Part of the Continued Success and GROWTH of SC3

What additional resources do you need to design and implement an SC3 component as part of your IAQ management program?



What steps will you take after attending this webinar to incorporate SC3 activities into your IAQ management program?



IAQ Tools for Schools Resources

- *IAQ Tools for Schools* Program
  - www.epa.gov/iaq/schools
- *IAQ Tools for Schools* Updates and E-mails:
  - Send an e-mail to: IAQTfSConnector@cadmusgroup.com
  - View archives at: www.epa.gov/iaq/schools/bulletins.html
- Schools IAQ Connector Listserv:
  - Send a blank e-mail message to schools_iaq_connector-subscribe@lists.epa.gov. Then, check your e-mail inbox for your confirmation and membership details.
- *IAQ Tools for Schools* Webinar Resources
  - www.epa.gov/iaq/schools/webconferences.html

Schools Chemical Cleanout (SC3) Resources

- **www.epa.gov/SC3**
  - SC3 Video: Safe Chemical Management in Your School
  - SC3 Workbook: Building Successful Programs to Address Chemical Risks in Schools
  - Green Cleaning Fact Sheet
  - Building Successful Programs to Address Chemicals in Schools: State Summaries
  - Success Stories
  - Comprehensive Partner Page

IAQ Tools for Schools Reminders

- Apply today for an *IAQ Tools for Schools* **National Award**.
  The deadline for competitive awards is **October 8, 2010**.
  - www.epa.gov/iaq/schools/awards.html

- Don't forget to register for the 2011 *IAQ Tools for Schools* **National Symposium**.
  The Symposium will be held January 13-15, 2011, in Washington, D.C.
  - www.epa.gov/iaq/schools/symposium.html

- View and download **presentation slides and materials** from this webinar!
  - www.epa.gov/iaq/schools/webconferences.html

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